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THOMAS P. GRASTY, Vice-President.
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COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

CHARLES T. FLEET.

Mr. Charles T. Fleet, senior member of the printing and publishing firm of Fleet, McGinley & Co. of Baltimore, died last Sunday, after an illness of six months. He was born at Fredericksburg, Va., in 1858, and coming to Baltimore ten years later he served an apprenticeship in the printing trade, and went into business under the firm name of Christian & Fleet. This partnership came to an end in 1884, and then Mr. Fleet joined Mr. J. Edward McGinley, taking over the printing office which had been started by the Manufacturers' Record, and continuing the printing of this paper and its various publications ever since. In the meantime the business of the firm was steadily developed on many other lines of excellence, until it was one of the largest of the kind in the city. To this result the zeal, intelligence, alertness and marked business judgment of Mr. Fleet largely contributed. He was devoted to his art, was ever on the lookout for new ideas, and quick to adopt the best. Diligent in business, he had earned during eighteen years of industry the right to enjoy the fruits of his successful career, and deep regret is felt that death should have called him at an age when ordinarily a man is best qualified for days of well-deserved ease and comfort. He was a man of quiet disposition, gentle in his dealings with his fellows, and he made and held a host of friends, to whom his death is a personal loss.

TRAINING FOR TRADE.

Three or four of the leading colleges of the United States have undertaken, by establishing definite courses bearing upon commercial life, to meet the growing needs in this country for a body of young men especially trained to carry its trade into new fields and to strengthen it in old ones. The Germans have been in advance of us in this particular, and have also been foremost

in attention given to the industrial training. A hint of their methods is given in a report by United States Consular Agent Ernest L. Harris at Eibenstock. In the German Empire commercial education falls into five distinct grades, ranging from commercial universities down to the primary commercial schools. Mr. Harris discusses only the latter, and he finds that of the 145 chambers of commerce or similar bodies in the empire, 112 are actively engaged in promoting commercial education through such schools. In 1901 twenty-two chambers of commerce spent \$16,652 upon forty-four schools under their management, forty-eight spent \$13,030 upon 102 schools more or less controlled by them, twenty-four gave small sums for prizes and books to thirty-one schools, four spent \$1697 upon independent lectures on trade and industry, and fourteen paid part of the deficits of thirty schools. In other cases prizes were given in the shape of books or money. Members of the chambers of commerce keep closely in touch with the schools, either as directors or as examiners, and they encourage their employees to attend lectures in the schools or others specially arranged for them. Mr. Harris says that this work by the chambers of commerce has only begun, and that many bodies are planning to enlarge the scope of their operations. The suggestion that similar methods might be adopted in the United States is an excellent one, whether those persons who enjoy the advantages of such schools in acquainting themselves with the resources and needs of other countries and with the best methods of promoting American trade are to engage in manufacturing, in direct commerce, or in the different lines of activity depending upon the healthy development of trade and industry.

THE ISTHMIAN CANAL.

The union of the Atlantic and the Pacific by an isthmiian canal built under American auspices seems now assured. After fifty years of agitation of the project, which far-sighted Americans have recognized as essential to the realization of the commercial and industrial possibilities of the United States, after delays wrought through contesting interests and conflicting opinions about ways and means, after impediments raised by diplomacy and politics, the desire of the American people that a canal should be constructed seems about to be satisfied. To the masses of the people it makes no material difference whether the canal shall be called Darien, Nicaragua, Panama or Tehuantepec. Their wish is for a canal that may be constructed at a minimum of expense and with a maximum of speed, which shall open a safe and short route from the seaports of the Atlantic and the Gulf to the markets of the west coast of South America, the Orient and the islands of the Pacific. Their hope is to see the Caribbean basin transformed into a highway of com-

merce, the greatest in the world, with the fleets of the United States in the van exploiting the rich and largely undeveloped countries of the Amazon and other parts of South America, of Central America, of Australasia, of China, Japan and India. Fifty years ago Matthew F. Maury, the great American, the Pathfinder of the Seas and an ardent worker for the expansion of American commerce, sketched the immense importance of the valleys of the Mississippi and the Amazon as contributors to the commerce of the Gulf, showed that from some one or other of the river basins of this Mediterranean of the West a crop was always on the way to market, and that it had a continent at the north, a continent at the south and a world both to the east and the west as its back country, and urging a piercing of the isthmus, said:

When there shall be established a commercial thoroughfare across the isthmus the trade winds of the Pacific will place China, India and all the islands of that ocean downhill also from this sea of ours. In that case the whole of Europe must pass by our very doors on the great highway to the markets both of the East and West Indies. * * * The three great outlets of commerce—the delta of the Mississippi, the mouths of the Hudson and the Amazon—are all within 2000 miles, ten days' sail, of Darien. It is a barrier that separates us from the markets of 600,000,000 people—three-fourths of the population of the earth. Break it down, therefore, and the country is placed midway between Europe and Asia; this sea becomes the center of the world and the focus of the world's commerce. This is a highway that will give vent to commerce, scope to energy and range to enterprise, which in a few years hence will make gay with steam and canvas parts of the ocean that are now unfrequented and almost unknown. Old channels of trade will be broken up and new ones opened. We desire to see our own country the standard-bearer in this great work.

That was Maury's view fifty years ago, when steam navigation was in its infancy, when there was scarcely a mile of railroad track west of the Mississippi, and when the population of the United States was not greater than that of the South today. Since then many transformations have taken place, but none has been sufficient to change by an iota the force of Maury's argument or to impugn the accuracy of his prophetic vision.

INTERNATIONAL IRON PROBLEM.

At the annual meeting of the British Iron Trade Association the president, Mr. Ebenezer Parkes, who lately made a personal study of the iron interests of the United States, commenting upon the report of the board of management, found occasion to utter a warning as to the future of the British iron and steel trade. He said:

You will notice that the exports of this country have gone down persistently during the last three years. In 1899 the total exports of British iron and steel were 3,717,000 tons; in 1900 they were 3,545,000 tons, and in the last year, 1901, they were only 2,900,000 tons, or a reduction of more than 800,000 tons

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on page 54.

on the exports of three years ago. The exports of pig-iron alone decreased last year nearly 600,000 tons. Well, that is a serious thing for us to consider. We also find that the imports have gone up in iron and steel in this country during the last three years. In 1899 the imports were 645,000 tons; in 1900, 761,000 tons, and in 1901, 868,000 tons; and, as you see by the report, most of the excess of imports of iron and steel have been from Germany. In the present year the increase, at the rate we are going at the present time, will be 200,000 tons more than in 1901. So that when we consider these two things—the exports declining seriously and the imports increasing at a very rapid rate—it shows the tendency of the iron and steel trade of this country to be unsatisfactory. The English total production of pig-iron in 1899 was 9,200,000 tons; in 1900 the total production of pig-iron was 8,900,000 tons; last year the total production was 7,700,000 tons. That means a reduction in our pig-iron in three years of about 1,500,000 tons. That is also a very serious item for us to contemplate. Look at the American production of pig-iron in the same period, which has gone up by leaps and bounds. In the month of April last a record month was established in the production of pig-iron in America. I believe in previous months they had reached a total production of something like 1,400,000 tons per month, but in the month of April, for the first time in the history of the American trade, the total production of pig-iron amounted to 1,500,000 tons. That is at the rate of 18,000,000 tons per year. When you consider that not long ago the American and the English production were side by side, and the English even above that of the American, and when we find that this year their production will be at the rate of 18,000,000 tons, against our 7,800,000 tons, it shows the increasing disparity between the two countries, and the wonderful way in which American production is going ahead. Not only so, but American blast furnaces are being blown in and constructed at the present time at an extraordinary rate, so much so that it is anticipated that during the present year, or next year, the increase in the production of pig-iron will be 4,000,000 tons beyond the present production. We may thus possibly see some time next year a total capacity for producing pig-iron in America of 22,000,000 tons. Take now the production of the ore of the United States. In 1898 the total ore raised in America was 19,400,000 tons, and in 1901 it was 28,500,000 tons. In three years there was an increase of nearly 50 per cent. I am afraid that there will be still further developments in the future. What does this point to? It points to the great local demand which there is in America. When we were over there—the British Iron Trade Commission—we were struck with the immense local consumption which was taking place with regard to iron and steel, mainly steel, in America. And at the present time the Americans are unable even to keep up, notwithstanding their enormous production, with those local demands. That consumption must have its limits. The question is, Is that limit reached at the present time? If it is not reached, when will it be reached? When the limit of their local production is reached, what results to the other iron and steel countries of the world will follow?

Mr. Parkes expressed the belief that while America is at the present time self-contained, taking all her own manufactures and even going elsewhere for iron and steel in various forms, the point would be reached where the production of 22,000,000 tons per annum cannot be consumed. That contingency, he argued, would mean not only competition in America for the home trade, but a going outside for the sale of the surplus. Great Britain, he said, had felt the effects of German and Belgian competition, and this was likely to be imitated by America, especially with its tendency to absorb all the carrying

trade possible, both on sea and land. Mr. Parkes insisted that the English must get ready for a great industrial war. He thought that the government could help them, but that one of the first things to be done was to get all kinds of machinery and labor-saving appliances in order to compete with foreigners on their own ground and to cheapen transit both by rail and canal. This cheapness, he said, was one of the foundations of American prosperity, and if it was not obtained for English manufacturers they would, to a large extent, be wiped out in future competition.

To this rather gloomy view was opposed the opinion of Mr. H. J. Skelton. He thought that the figures of American production were not alarming to the iron and steel trade in Great Britain, but rather encouraging. Advance in civilization was creating such an increase in the daily requirements in the human race that the consumption of iron and steel in all shapes must continue to be very large, and that therefore the Englishman should follow the example of the American and provide for this future large development. This suggestion, he thought, was the alternative between an unnecessary pessimism and an unnecessary optimism. The tendency all over the world, he said, was in the direction of greater economy of production, necessitating the tearing out of old plants and the dealing with bigger things generally. In Great Britain there had been too much narrowness in that particular, and he urged that the blast furnaces of the country should be made more economically fit.

In a certain sense Messrs. Parkes and Skelton differ only in their respective premises. They seem thoroughly agreed as to the necessity for an adoption in Great Britain of American methods and practices. The one has in view the purpose to meet American competition; the other the purpose to share with America the benefits of thorough preparation for an expanding demand for iron and steel. The latter seems to be the more logical position, and one with which no American may justly quarrel.

The Southern Farm Magazine.

Discussing the white native population of the South, the Southern Farm Magazine in its July issue points out that of the 15,758,318 white persons in the United States who were born in the South, 1,347,121 are living in other than Southern States, and it suggests the possibilities in a return of every one of these 1,347,121 exiles, bringing with him or her four or five natives of other parts of the country to enjoy the benefits flowing from the great development of the South, to which they would materially contribute. It mentions the influences which have operated in placing this number of persons beyond the limits of the South—the restlessness inseparable from the race which dominates America, the attraction of friends and relations of the pioneer stock, the search for greater opportunities, the force of gravitation exerted by great cities, and the calls made in other parts upon Southern talent, ability and energy. These migrants have been participants in the shifting of population and the exchange of citizenship among the sections, which can have only the effect of broadening the general knowledge of the people of the United States about one another and conducing to a better Americanism.

In the meantime the steadily-increasing migration from the North and West to the South is by no means forgotten by the

Southern Farm Magazine, and in the interests of that movement it proposes to publish from time to time articles descriptive of the agricultural conditions and the chances for farmers in the several Southern States. These articles will be of a broad and comprehensive character, suggestive and inviting, rather than technical and detailed. The first, by Col. J. B. Killebrew, a sturdy veteran in the cause of all that affects the South for its good, is published in the July issue, and deals with Tennessee. It will be followed by others relating to States in the middle South from the pen of Colonel Killebrew, with those of the lower Atlantic seaboard, the Gulf region, the Mississippi valley and the Southwest by other writers, and will undoubtedly be valuable additions to Southern promotive literature.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co., Baltimore. Price \$1 a year.

In the Beaumont Oil Fields.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, June 21.

The Heywoods have purchased all the vessels on the Mermentau river near Jennings, and are reported to have sold 150,000 barrels of oil for immediate delivery on the banks of the Mississippi.

The shipments of oil from Spindle Top will exceed 7500 cars this month, and will run about 1,500,000 barrels, which will be by far the largest month's business ever recorded here. The facilities for handling the product are being rapidly increased, and consequently the shipments will continue moving upward, because the demand is and has been all along far ahead of the capacity for shipping.

Oil prices are looking up, and it is now a hard matter to get oil for prompt shipment on cars for less than twenty-five cents. Some are asking more, and it is said they are actually getting a higher price than this. The amount of tankage for the month will show an increase of 1,000,000 barrels over the last, and they will in most cases be filled.

Beaumont's Latest Industry.

The latest important announcement of an industrial nature at Beaumont, Texas, is that a \$1,000,000 smelter and sulphuric acid plant will be established by Northern capitalists. Mark Cox, a New York banker and financier, represents the Eastern parties who will invest, and his representative or local manager at Beaumont is E. H. Mower. It is planned to construct commodious buildings of structural steel, stone, brick and concrete for housing machinery, for car sheds, machine shops, warehouses, etc. Earthen tankage will be constructed with a capacity of 1,000,000 barrels of oil, and oil will be piped to the plant from three gushers on Spindle Top, which have been purchased by the projectors. When completed the works will employ 500 men, with a monthly payroll of about \$40,000. Sulphuric acid will be the principal product, and the zinc ore to be used will be shipped principally from Joplin, Mo., and from Kansas, where it is said the company's promoters are extensively interested. This plant expects to supply the acid largely to the refineries, which use sulphuric acid as their principal agent in refining the oils.

As a feature of the first congress of the Southern Pacific Land and Immigration Agents, held at Galveston during the past week, was an excursion of 400 men from Illinois, including members of the Chicago Board of Trade and wealthy farmers of that State. These visitors went South to invest, a party of twelve of them being interested especially in Rosenberg, Texas.

SCOPE OF THE ST. LOUIS EXPOSITION FOR 1904.

Plans to Make It a Great Industrial and Commercial Educator.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., June 21.

What the World's Fair will do for St. Louis, the Southwest, the nation and the world is a feature of the big Louisiana Purchase celebration of 1904 about which not much has been said. Possibly this is because of the recognized peril of indulging in prophecy. But at the same time it seems to me that of all the aspects of the undertaking, this is the one of paramount interest, not alone to the men who make and exhibit machinery, who minister to the needs of civilized man in the various ways which constitute the make-up of commerce, who are connected in any way with the very important material side of the exposition, but just as strongly to those whose whole estimate of the exposition's value is based on the degree of spiritual uplift it will bring. And it furthermore seems to me that on broadly surveying the plan and scope of St. Louis' World's Fair, glancing at the line on which its projectors are at work, studying the conditions surrounding the undertaking and then making a comparison with the conditions and results at other world's fairs, something approximating a reasonable conclusion may be arrived at.

Thus, it is already certain that St. Louis is to have the greatest exposition ever seen on the globe, and it is not unlikely that it will be the last great universal exposition devoted to the arts, sciences and industries. The last Paris Exposition was great as an art exhibit, as a bazaar, but it did not approach the Chicago Exposition in universality of interests represented. It seems to be the tendency of the day to take up one great group of subjects at a time in the expositions planned for the immediate future, the advantage of which is that more thorough treatment may be secured of a subject in which a certain number of people may be specially interested. Again, it may well be doubted that any city in the world could, even if it wished to, finance, at any near time in the future, such an exposition as the St. Louis World's Fair will be, with its probable \$50,000,000 expenditures before the opening of the gates. So it looks as though St. Louis were destined to say the final word on the subject of universal expositions, to place the cap-sheaf on the glory of such undertakings. And while the mere matter of physical magnitude may not carry strong conviction, and the fact that St. Louis has acquired 1100 acres for exposition purposes may not mean overmuch to even those familiar with big expositions, yet it is palpably true that if St. Louis at all adequately presents the proposed panorama of processes, which is to show how the work of the whole world is being carried on today, this exposition must go as far beyond the Chicago World's Fair as its size will exceed the exposition of 1893. For the past ten years has seen an evolution in processes which is little short of a revolution in many lines, and much that was proudly exhibited in 1893 is as much behind the times and obsolete as the implements the farmers used in Andrew Jackson's day.

Then, too, more has happened in the world in the past ten years than for many decades before, and the relations of the United States to the world have so completely changed that the America of today is a totally different force in the estimation of the world than was the nation the foreign countries thought about or visited in 1893. A recognition of this great fact may have influenced the United States

government, which gives \$5,000,000 to the Fair. It will be one of the special objects of the St. Louis World's Fair to gather here every feature of existence in the so-called East, really the present Far West of the American nation. Everybody thought when the war between China and Japan was begun that but one outcome could be the result, and the surprising victory of the Japanese aroused the interest of all the world in the new Oriental power. Before the Spanish-American War the peoples of the East, at least, had small knowledge and less respect for the United States as a factor in world affairs, while now everything America does is watched with interest everywhere. The Philippines are now something besides a mere dot on the map, and the future of the group is a matter of deep interest to people of every shade of belief and to all the nations of the earth. The Boxer troubles in China familiarized people with the conditions in China as they had not been before, and the fate of that ancient and gigantic empire is a subject of the deepest concern to the wisest of the earth. The Federation of Australasia has created a new nation in the Antipodes, whose development is a commercial proposition of prime importance to the merchants and manufacturers of the United States. All that has occurred in the East has opened the eyes of the people of the United States to the opportunities which exist in that great quarter of the globe, and they are now paying attention to what is being said about those countries, while the appeals of speakers and writers of ten years ago went unheeded by.

In the proposition to depart as far as possible from the plans of previous expositions, it is arranged that at St. Louis education is to be given first place. Universal knowledge of contemporaneous conditions is the object aimed at "to fix the condition of the world in all its branches of human endeavor." The prevailing characteristic is intended to be life and motion, the installation of product and process in juxtaposition. This is the great central fact of the St. Louis Exposition, the point of departure from expositions of the past. It is to be as if one were to take the wings of the morning and fly to the uttermost parts of the earth, spying out the peoples as they go about their daily tasks, in village and on plain, in factory or mart, on land or on the sea. Or, it is as if some giant hand were to pick up towns and peoples and transport them, with all their surroundings and activities, to a paradise of tree and bower, fountain, cascade and flower, while about them, housed in imposing structures of gigantic size, will be the processes and the products of the ripest genius of twentieth-century civilization. Instead of relegating them to the cheap and frivolous Midway, the colonies of strange and interesting peoples will be given a place of honor on the main grounds of the exposition, and they will be allotted such space as will be required for a really serious attempt to demonstrate how they live when at home, how they work and how they play. Thus there will be afforded an understanding of the character of the Philippine Islands and the people there, and the resources of the possessions and the opportunities for development work by outsiders which could not be equalled by anything else than a protracted visit to all the islands in the group. Commissioners have been sent to every corner of the

globe to personally secure the co-operation of all the nations of the earth, their character being indicated in the selection of John Barrett, the former minister to Siam, as the commissioner to Asia and the islands of the Pacific. No such exhibit of the actual conditions which exist in all the East will ever have been seen, and in the demonstration which will be made of opportunities for trade, for the development of resources and for profitable and desirable closer relations, a feature of incalculable interest and advantage will be provided. The West Indies, Hawaii, the Samoan Islands, as well as the Orient, including China and Japan, will all be represented by such an ample and complete exhibit of conditions and resources as will show to the world just what is being done there and what yet remains for others to help them do. And so will Canada, Mexico and the South American republics and France and Germany and other great nations of the Old World be on hand with creditable and enlightening displays, until a visit to St. Louis in 1904 will be nothing short of a liberal education to the merchant, the manufacturer, the agriculturist, the inventor and the student of affairs and men.

The principal sections into which the exposition will be divided are agriculture, anthropology and ethnology, athletics and outdoor sports and games, chemical industries, civil engineering, colonization, decoration, furniture, etc.; diversified industries, education and instruction, electricity, fine arts, foodstuffs, forestry, history, horticulture and arboriculture, liberal arts, machinery, military and naval, mining and metallurgy, social economy, textile, transportation, wild animals.

The plan and scope of the exposition contemplate a number of innovations. For instance, for the first time in exposition history social economy is magnified into one of the great departments. In this department twentieth-century reform ideas will be given full opportunity. Among the groups into which this department will be divided are municipal improvement, public health, charities and correction, general betterment movements, the liquor question, the housing of the working classes, provident associations, methods of industrial remuneration, organization of industrial workers, State regulation of industry and labor. Man's social advancement to his full twentieth-century development will be shown, and there will be illustrated the modern home, with the infinity of comforts and conveniences that have been brought into common use within the century the St. Louis World's Fair will commemorate.

The appropriation of \$200,000 for an airship contest, in which Santos Dumont and Sir Hiram Maxim have already signified their intention of entering, illustrates the extreme diversification of interests which will be served, and emphasizes the declaration that every phase of human activity will find in the exposition an expression of its highest development.

An enumeration of only the features of world-interest which this exposition will contain would fill a large space on this page, a good-sized publication being maintained by the exposition management for the presentation of facts about the Fair as they develop.

Educational beyond anything ever before attempted at an exposition, every feature of the Fair will be an inspiration in its line. The arrangement of the buildings and grounds make the most of the wooded, hilly site which has been chosen, and the picture of the Fair will be one of rare delight. In addition to the triumph in landscape gardening which the grounds will represent, the buildings will be so distinctly works of art that they will be

entered for prizes in a department of the art exhibits. It is promised that these buildings will awe by their size, while at the same time charming by their grace and beauty. For instance, the Agricultural Palace will cover thirty acres of ground, the varied industries and the manufacturers' buildings will each take up about ten acres of space, and several of the others will cover hardly less. All the buildings will be of white staff except the Art Building, which will be of a permanent character, and the buildings of the Washington University, which have not yet been occupied by the university, and which have been leased to the exposition during the continuance of the Fair. It is proposed that the sculptural adornment of the buildings shall surpass anything of the kind ever seen in America, and the grand entrances and loggias have been so arranged as to afford the mural painter every opportunity to depict the progress of the country with the charms of allegory and the poetry of the brush.

In the arrangement of the buildings and the works the highest degree of convenience and comfort for visitors will be secured. Ease of access by means of steam and electric roads is assured, and it is the intention that the St. Louis exposition shall go down in history as the first great international exposition which could be reached, inspected and departed from without fatigue and hardship to the visitor.

To this enterprise the people of St. Louis have subscribed \$5,000,000, and the city has given \$5,000,000 more in bonds, which sold at a premium, and it is indicative of the spirit which has animated these people that there will be no disappointment if not one dollar of this \$10,000,000 is returned to them out of the proceeds of the Fair. The greatest men of the city, with ex-Governor D. R. Francis at the head, are giving their time and means freely to the enterprise, and they are backed by the people of the entire city, as well as receiving the hearty co-operation of the thirteen States and the Territories which have been carved out of the territory of the Louisiana purchase. Missouri has given \$1,000,000 for proper representation at the Fair, and is to have a conspicuous building made entirely of the woods, stones and metals which comprise some of the rich resources of this empire State. All the States and Territories lying within the boundaries of the Louisiana purchase will present in a comprehensive manner the history of their development, and will show what they were at the time of the epoch-marking purchase, what they have become now, and what is the basis on which expectations rest for a still greater development in the future. In these object-lessons such a marvelous presentation will be made as cannot fail to powerfully impress the beholder who comes from any quarter of the globe, and the transformation occurring in the great Southwest must stand out among these achievements like the wonders of a magician.

Looking back at the effects of previous international expositions held in this country, it seems that the Philadelphia Centennial of 1876 is conspicuous for the impetus it gave to manufacturing in the United States, in which Philadelphia was a beneficiary to a large degree. As a part of the same movement, manual training was engrafted upon the school system of the United States, and it is impossible to say how much the present industrial supremacy of this nation owes to the spirit of the Centennial. The beautiful White City at Chicago in 1893 made the world acquainted with the West as it never had been before, and it thus helped the whole nation in a material way, while it also brought a great awakening of the art in-

stinct among the whole people. To Chicago itself the blessings it brought are difficult to compute entire. Though it kept one court busy for some months to settle up all the cases of bankruptcy which followed the fair, the facts are that many of these cases were of hotel men and others whose individual shortcomings are entitled to be taken into account in any consideration of their failure to succeed. As for the whole city, it has been declared by President Higginbotham, who is assuredly in a position to speak with authority, that the money value of the fair to Chicago was not less than \$100,000,000. Permanent improvements in the way of many new buildings were secured, Drexel boulevard was built, the great Field Museum doubtless came into existence by reason of the exposition, a tunnel was built under the river, and there has been a vast enhancement in the value of all the property in the vicinity of Jackson Park. Then, in addition to all this material benefit, there has been a community spirit aroused among the citizens of Chicago which Mr. Higginbotham declares to be worth in every way to the city a thousand times a hundred million dollars.

This much it is certain that St. Louis will receive. And there never was a city of so great a size which was so ripe for a movement of this kind. It would seem as though the very psychic time for such an exposition had arrived, not only as regards the nation, but the city as well. All the nations of the world are willing to learn now all they can about the activities and the genius of America, and these will all be set forth as never before at the St. Louis World's Fair. And never before has St. Louis been in a position where she was so in readiness to make a bid for the attention of the world. This has been a self-centered and very contented old town, and it is only within recent years that any attempt has been made to get in line with the strenuous life of the age. Old settlers can give instances of the woeful lack of public spirit which retarded progress in different lines, and can show where want of the community feeling kept the city in a rut. But all that has disappeared, and of it the late arrival finds no trace. Now the people pull together in a way that gives little less than astonishment to the newcomer, and the determination to do big things and do them well seems to fill the very air. Already the community spirit is rife. It seems almost as though St. Louis were a great giant who had just awakened from a refreshing sleep, and is now diligently doing such great deeds as were hardly dreamed of before. That St. Louis men will give a world's fair the like of which has never been seen on earth before will be the marvel of the age, for it is a bald fact that so little has St. Louis depended on the outside world in the past that Europeans hardly knew its location on the map. St. Louis borrowed no foreign money, and being all-sufficient in itself, came in infrequent contact with the activities of those abroad. Even among the peoples of this nation little is known today of the great strides St. Louis has taken in commerce, finance and manufacture. The World's Fair will "lift the lid," as it were; will reveal to the nation and the world what a mine of wealth there is in this solid old town; will show what wonderful resources there are in the territory naturally and inalienably belonging to St. Louis, and will familiarize the world with the conditions which foretell with the certainty of fate the upbuilding here of a metropolis vast and great. The old St. Louis has even now passed away. With the increased knowledge of the opportunities which the World's Fair will bring, all

the world will contribute of its men and means help to speed along the new order of things which is now at hand.

ALBERT PHENIS.

INCREASING THE RICE AREA.

Plan for a Big Irrigating Canal in Louisiana.

[Special Cor. Manufacturers' Record.]

New Orleans, La., June 21.

An English syndicate represented by George Thompson, Jr., of New York city is about to begin the construction of a great irrigation canal seventy-five miles long and 250 feet wide, to run from Washington through St. Landry and Acadia parishes to the Bayou Nez Piquez, and into Calcasieu parish.

The water supply, which is ample, will be obtained at Washington, situated on a branch of the Atchafalaya. The canal will be called the Bradford, after the Crowley civil engineer who surveyed the route and obtained the rights of way for the proposition. Capitalists of England were interested, and sent their representatives to report on the project, and the reports compiled were in every sense most highly favorable. The result was the speedy conclusion that the canal should be built.

Modern irrigation appliances will be provided and the capacity of the canal made sufficient to irrigate from 500,000 to 700,000 acres of land. The route of the ditch will be through one of the peculiar tracts which in this State are called prairies, and which at the present time produce nothing, yet when irrigated will be capable of producing from twenty-five to thirty-five sacks of rice per acre. Members of the State board of engineers have recently declared that this was one of the very richest portions of the State, and this declaration, too, was made before the canal project was as much as thought of.

Messrs. Thompson & Bradford, who are now on the ground engaged in the preliminaries of grading and digging, expect to return North in a few days, after all contracts for excavations are closed. They expect soon to place contracts for machinery, pumping plants and rice mills, as it is a part of the plan of the syndicate to place mills along the canal to mill the rice which will be raised, and not only this, but to construct a railroad from Washington to the Southwest as a still better outlet for the product of the farmers they will induce to locate there from all parts of the Northern and Western States, and perhaps from England. Banks will be established at Washington and at other necessary points in order to facilitate the farmers in their pecuniary needs and as a business proposition as well. It will require from \$1,500,000 to \$2,000,000 to construct the canal. The canal, when completed, will add materially to the area of the rice belt. The scheme is one that will build up whole towns, increase assessments and revenues and add to the rapidly-increasing wealth and prosperity of the Pelican State.

A stock company is in progress of formation in New Orleans, the purpose of which is to establish a water route between New Orleans and Beaumont, which will materially diminish the distance covered by the route now being used in conveying oil from the latter point by means of barges. The proposed route will be by the Gulf to Barataria bay, thence to the river by a system of canals, making a difference in distance of nearly 100 miles. Barges will be the means of conveyance, and large tanks will be erected somewhere near Wood Park plantation for the storage of the oil. Col. James Wilkinson is the promoter of this splendid scheme, he having the greatest portion of the stock already subscribed.

Because the cotton interests of New Orleans and Mobile have determined not to leave cotton purchased in Mississippi any longer than possible on account of the insurance laws recently passed in that State, bankers, cotton and insurance men and merchants all over Mississippi will petition Governor Longino to call a special session of the legislature repealing the obnoxious law.

The Progressive Union is making a determined effort to have a large delegation present at the coming meeting of the Trans-Mississippi Commercial Congress, to be held in St. Paul on August 19-22. Secretary Arthur Francis of this organization is sending out a great deal of literature.

The total value of imports here for May was \$3,295,531, as against \$2,454,364 for May of last year. The duties collected amounted to \$1,328,999.86, as against \$1,252,462.38 for May of last year, an increase in favor of May of this year of \$76,537.48. The largest part of these duties were on sugars imported from Cuba and Germany. During the first half of this June the duties have amounted to \$612,000.

BROUGHT TO MEMPHIS.

Manufactures Attracted by the Industrial League's Campaign.

On July 1 the Memphis Industrial League will close its most successful year under the direction of Mr. I. F. Peters, secretary and industrial agent. Mr. Peters has prepared his annual report, which shows that during the year the league has brought sixteen manufacturing concerns to Memphis, which, in full operation, will employ 1800 persons, with a weekly pay-roll of more than \$21,000. According to the Memphis Commercial-Appeal, the report shows that the following concerns have come to Memphis through the energies of the league:

	Capital.
Nell & Montgomery, lumber dealers.	\$25,000
Penick & Ford, refiners and mixers.	100,000
Kennedy-Morelock Co., tight-barrel staves and heading.	100,000
Swartzchild & Sulzberger, packers.	1,000,000
Southern Electric Telephone Co.	50,000
Smart Heating Co.	10,000
Weis & Lesh, spokes and skewers.	400,000
American Skewer Co., spokes and skewers.	400,000
Lansing Wheelbarrow Co.	500,000
Rodley Wagon Co.	200,000
Dempster Mill Manufacturing Co., pumps and mill works.	400,000
Couch Bros. & J. J. Egan Co., horse collars.	100,000
Wisconsin Heading Co.	50,000
Memphis Buggy Co. (Cincinnati partnership).	100,000
C. C. Calkins, cloth boards.	15,000
American Trackbarrow Co.	50,000

Weis & Lesh come from Muncie, Ind. Peter Lesh was first attracted to the city through a communication from the Industrial League. The company purchased nine acres of land on Kansas avenue at the intersection with Division street, and is now about ready to begin operations.

Liebman & Co. come from Cincinnati, and leased the property at the corner of Broadway and Davie avenue for eight years.

The Smart Heating Co., with an established business, came quietly in at the invitation of the league, and put up a substantial building, and is now making and shipping low-pressure steam and hot-water equipments all over the South.

The Southern Electric & Telephone Co. has leased the entire top floor of the R. Brinkley Snowden building, with 1200 feet of space, and is making telephone instruments.

The Lansing Wheelbarrow Co. has purchased ten acres of ground on Kansas avenue and 12,000 acres of timber land in Arkansas, and is now grading for the foundation for one of the largest manufacturing buildings in the Southern States.

Couch & Egan are building two two-story brick buildings in South Memphis. One is a warehouse, the other a manufacturing building. They make horse collars and harness. The capacity is 2000 collars a day, putting into them twenty bales of cotton and 4000 yards of ducking. It will make 1000 backbands a day, using five bales of cotton, and 1000 collar-pads a day, using five bales of cotton and 1000 yards of five-ounce drilling. It will employ at the outset 100 hands.

The Rodley Wagon Co. has bought five acres of ground, and has been given fifteen acres more. Its great building is up to the second floor. Its capital is \$200,000.

GRADUATED TO WORK.

Record of Alumni of the Georgia School of Technology.

At the graduating exercises of the Georgia School of Technology at Atlanta, Ga., last week, President Lyman Hall announced that the \$10,000 necessary to secure a gift of \$10,000 from the general education board had been raised, and that the money would be used to equip during the summer electrical and experimental laboratories in the school. Degrees were conferred by Chancellor Walter B. Hill of the University of Georgia upon twenty-five young men, and the annual address was made by Mr. Richard H. Edmonds, editor of the Manufacturers' Record. Reviewing the careers of graduates of the institution, President Hall said:

"Your predecessors are well worthy of your imitation. When we pause to think that there have been 122 of them to leave here and pursue, in almost every case, the line of work for which they were prepared; when we reflect that not one of that 122 has ever had a whisper against his good name in his business or in his social relations, well may we direct you to all of them as object-lessons for your own future conduct, and more convincing than the arguments of the sages, more attractive than could be described by any flight of eloquence or charm of oratory, more prolific of good advice than the spoken precepts of the philosophers of all the ages. All of them are young men still, and yet they begin to have power and feel responsibility.

"Nine bear the title of superintendent.

"Five are independent electrical engineers.

"Twenty-eight are in business for themselves and independent of employers.

"More than 90 per cent. have responsible positions in mechanical lines.

"Since and including the year 1897 there have been forty graduates, and forty of them, 100 per cent., hold positions in mechanical pursuits.

"One graduate is a lawyer, who shall always remain counsel for the defense of his alma mater.

"One is a minister, respected, beloved in his community, the chaplain of the alumni association.

"One is a school teacher—just one—possessing all the virtues and erudition of his profession. He has done well to do this, for in that profession there is nothing else to possess.

"One is a physician, but he is the best physician in Southwest Georgia, where he is loved and honored.

"One is a farmer, the son of Congressman Everett, by the way. Whenever any machinery needs attention within a radius of fifty miles of young Everett's home he is sent for."

The sales in the Joplin (Mo.) district during the week ended June 21 were 9,849,900 pounds of zinc ore and 967,220 pounds of lead ore, valued in all at \$178,813.

AWAKENING TO NEEDS OF SOUTHERN BOYS.

Widespread interest in the cause of training the Southern white boys for the mechanic arts and the professions concerned with the material development of the South is indicated by the comments by the press of various States upon the address made last week by the editor of the Manufacturers' Record at the commencement of the Georgia School of Technology at Atlanta. The movement in this direction has been gathering force in recent years, and has already been effective for the strengthening of the only institutions in the South where its youth may begin their preparation for practical life-work. The need of more schools and better equipment of those already doing valuable work under difficulties is keenly felt, and the agitation in behalf of assistants for them is bearing fruit among legislators and private individuals. But the work must be pushed, and one of the best means of advancing it is the earnest support by the press of every practical plan suggested and a wider and wider publicity of facts and arguments in their favor. Following are some of the comments based upon incidents of the commencement of the Georgia School of Technology:

Better Equipment Needed.

(Birmingham News.)

That was a pointed illustration drawn in the address of Mr. Richard H. Edmonds, editor of the Manufacturers' Record, before the graduating class of the Georgia School of Technology in Atlanta yesterday. Mr. Edmonds made a strong plea for the broadest manual and technical education for Southern boys, and declared that unless the South develops its now limited facilities for the many white boys who would gladly avail themselves of the opportunity, "its great natural advantages will no more enable them to win in competition with the technical experts of other sections than would a naturally strong position enable an army equipped with the old muzzle-loader guns to withstand an assault from one holding a position naturally weaker, but equipped with the repeating rifle and the breach-loading cannon."

That is it in a nutshell. No man can achieve the best results without the proper equipment. We frequently hear people say that so-and-so has made a success in business or politics or in some other field of effort, and then point to this fact as an argument that a collegiate or technical education is not necessary for the attainment of great ends. But this argument is entirely untenable. The man who makes a success without the advantages of a good mental education is an exception—so much so, indeed, that he attracts attention in a crowd; while the educated man who has made a success is the rule, and nobody appears to think the fact a field for comment. While we pick out a successful business or professional man without the advantages of an education and call him a self-made man, we seldom consider what that man might have been had he enjoyed over and beyond his natural abilities the vast assistance derived from a liberal education. The fact is all men are self-made except the tailor-made man; but the man who is well trained mentally for the work that lies before him, other things being equal, is pre-eminently the successful man. There are geniuses in all fields of human effort. In every profession we find men who by some peculiar natural talents have risen above the disadvantages resulting from the lack of good mental training. But there are thousands who possess the foundations for making of themselves useful and influ-

ential men in the development of a community's interests, and yet who have to work out by hard, grinding methods results that could be much more readily attained if only the proper educational advantages had been given them.

The South, and especially Alabama, offers a broad and fruitful field for the honest, hard-working young man who wants to make something of himself. Indeed, we may say this field is rapidly extending in its scope, and the opportunities are well-nigh unlimited. This is a practical age—an age of specialists. There is a crying demand for the man who understands the details of his particular line and appreciates its possibilities. But the facilities are sadly lacking. Adequate technological schools are needed more than ever before. They are, in fact, the greatest agency by which our vast industrial interests can be properly developed. The opportunities are all here, but the means by which those opportunities are to be developed are wanting. As Mr. Edmonds says, "in the struggle for individual, community or national success the trained expert is to be the leader." And in no section of the country is this true more than in Alabama. Observant men have long since realized this, and the question naturally presents itself, are we to reap the benefits of nature's vast storehouse of wealth appealing for development, or are we to let others and outsiders come and gather them in?

Mr. Edmonds has written much and ably on this subject. He has been impressing upon the people of the South for some time past the fact that while a great deal has been done by the philanthropists of the North for the education of the negroes, comparatively little has been done for the technical training of the white boys of the South. As the South is developing rapidly along industrial lines, the need for the sort of education referred to is all the more urgent. Every boy cannot be brought up to the profession of engineering, but every boy can become skilled in some branch of mechanics if he only has the opportunity and the application. If Mr. Edmonds' idea had been acted on several years ago there would be today far less complaint about the scarcity of skilled workmen in the Birmingham district and in other sections of the South.

A Story of Progress.

(Savannah News.)

In the course of his address before the Georgia School of Technology yesterday Mr. R. H. Edmonds of Baltimore recounted a story of the progress of the South that must have filled his hearers with pride, and which should have the effect of spurring them on to greater efforts. How many persons know that the South is wealthier today than the whole country was in 1860? Yet that is what Mr. Edmonds asserted, and quoted statistics to prove. And this has been accomplished in the course of a little more than forty years, during which period the section was devastated by the greatest of modern wars. Deducting the war and reconstruction periods, it may be said that the South's present development has been brought about in but little if any more than twenty-five years.

What does that development amount to? In 1860 the total wealth of the whole country was \$16,100,000,000. Mr. Edmonds says the census will show that the South's wealth in 1900 was fully as much. In 1860 the entire country made less than 1,000,000 tons of pig-iron; today the South is making nearly 3,000,000 tons per year. Last year Alabama alone produced twice as much coal as the whole

country produced forty years ago. The value of lumber produced in 1860 was \$96,000,000; the South is now marketing over \$200,000,000 of lumber a year. Forty years ago the country had a little more than 30,000 miles of railroad; the South has now over 55,000 miles of railroad, and extensions are being continually made. And so the figures go all along the line. Even in banking capital we have nearly one-half as much as the United States had in 1860.

While this great advance has been made, the material resources of the South have hardly been more than touched upon. One-half of the standing timber of the country is in the South; the Southern hills are filled with valuable ores and other minerals, and the valleys and lowlands are adapted to the growing of about every product of the temperate zone. The progress of the next forty years will be more wonderful than that of the past forty.

The South's most valuable resources, however, are, as Mr. Edmonds says, her boys and girls. They must be educated in such manner as to fit them for the responsibilities that will devolve upon them as the coming developers of the section's richness. The technological school is doing a great work in that direction. Other schools that will afford technical training are needed. The present era is one of industrialism, and it has a long time yet to run.

The Instant Need.

[New York Commercial Advertiser.]

Mr. R. H. Edmonds, editor of the Manufacturers' Record of Baltimore, in the course of an interesting address yesterday at the Georgia School of Technology, Atlanta, contrasted the inexhaustible natural resources of the South with the comparative poverty of its technical skill in working them up into manufactures. We have grown so accustomed to statements, official and otherwise, as to Southern wealth and economic possibilities that emphasis of the neglect of technical education is a welcome contrast. This does not imply that the South has not made some progress in the industrial training of its operatives, but that in comparison with the huge totals of value in rough material in many lines, the manufacturing power of that region has scarcely begun to be developed. A large part of the inventive skill in cotton goods manufacturing processes, for example, has come from New England. The Southern Yankee is an integral part of the new industrial system which is rising on the ruins of the slave-owning oligarchy.

Discovery of manufacturing possibilities has supplied a new motive for delivering the South from the industrial dependence which has marked its course more or less since the Civil War. The meaning of this is suggestively indicated by comparing the richness of Alabama, for example, in iron, coal and timber with the sterile soil of Massachusetts. Yet the latter State until recently has been the manufacturer of immense quantities of the South's raw material. Ten years ago Massachusetts, with its 2,250,000 people, manufactured more than the South's 20,000,000, and only during the last decade has the Southern population, now 25,000,000, forged ahead of Massachusetts in manufacturing importance. These figures show the immense deprivation which any rich region of the country suffers when, through industrial inaptitude, its manufacturing is done in another region. Being self-sufficient in variety of resources, the South has determined to be self-sufficient in its development of manufactures and export trade. Judging by progress that has been made in the last decade, forecasters of the South's industrial des-

tiny do not doubt that within the next forty or fifty years the 93,000 factories of that region will increase to 600,000, its \$1,200,000,000 of manufacturing capital will be multiplied ten times, and the annual output of its factories and mines will grow from \$1,600,000,000 to \$15,000,000,000. There is no cause to doubt the reasonable basis for this prodigious array of figures, provided the creative power of skilled labor is enlisted to the fullest possible extent.

Undoubtedly the cause of general education in the South is gaining a very strong impetus from the felt necessity for an army of trained operatives. The instant need of technical schools will help the cause of the public school. The consciousness that Northern capital and skill will eagerly assist in Southern industry is stimulating the manufacturers to increase the economic value of Southern youth, and to establish new centers of rivalry with Northern centers of production.

Riches of the South.

[Jacksonville Times-Union.]

In his address before the Georgia School of Technology Mr. Edmonds, the editor of the Manufacturers' Record, quoted from official papers to show the magnificent proportions to which Southern development had attained, and the exhibit is most inspiring to every citizen of this section. He shows that the South has now 93,000 factories, but he prophesies of a time when these shall number 600,000. He finds we now have \$1,200,000,000 invested in manufacturing, but sees that this must be multiplied by ten. He shows the basis for his opinion that the output of our mines and factories will soon be worth \$15,000,000,000 instead of the present \$1,600,000,000.

But the lesson he draws is for our present when he demands that we train our own boys to direct the further development of this natural wealth; that we grow our superintendents instead of importing them, and that we make a conscious and concerted effort to do this throughout by remodeling our schools. And at last he shows that we have gained something even more valuable than this material wealth in the years that have seen us emerge from the ruin of war and bad government.

Practical Training.

[Baltimore News.]

It is pleasant in these commencement days, when so many empty platitudes are uttered, to find Mr. Richard H. Edmonds of Baltimore taking advantage of the opportunity to push forward his campaign for technical education in the South. The keynote of his address yesterday to the graduates of the Georgia School of Technology was contained in the sentence: "The men who are to be the greatest benefactors of the people of the South are the boys who, trained in our technical schools, are to be the leaders in our material up-building." But the entire speech abounded in sensible deductions drawn from a long experience. No one knows better than Mr. Edmonds the needs of the South, and his advocacy of increased facilities for technical education ought to be crowned with high success.

In the South's Interest.

[Charleston News and Courier.]

In an address delivered in Atlanta a few days ago Mr. R. H. Edmonds, editor of the Manufacturers' Record, made a strong plea for manual and technical education for Southern boys, and in the interest of the South itself. He declared that unless the South develops its now limited facilities for the many white boys who would gladly avail themselves of the op-

portunity, "its great natural advantages will no more enable them to win in competition with the technical experts of other sections than would a naturally strong position enable an army equipped with the old muzzle-loader guns to withstand an assault from one holding a position naturally weaker, but equipped with the repeating rifle and the breach-loading cannon."

Abrasives in the South.

The total value of natural abrasives produced in the United States in 1901 was \$1,194,572. Dr. Joseph Hyde Pratt, in "Mineral Resources of the United States," now in press for the United States Geological Survey, tells of the States where the supplies are found. Several of these are Southern States. In Arkansas whetstone quarries are in Garland and Saline counties, the principal ones being on Quarry or Whetstone mountain, near Hot Springs, Garland county. While most of the grindstone is derived from Ohio and Michigan, there are a few quarries in West Virginia across the river from Marietta, Ohio. In Virginia burlstone quarries have been opened on Brush mountain, in the vicinity of Price's Fork, Montgomery county, and the stone is known as Brush Mountain stone. Infusorial earth is found in Maryland, Virginia, Georgia, Alabama and Arkansas, while at Carthage, Mo., is found a porous siliceous rock which is used for the same purpose as infusorial earth in the manufacture of polishing powders and scouring soaps. Garnet deposits have been worked at a number of localities in North Carolina with success. These are all in Jackson county. There is, too, a large deposit of massive garnet in Mitchell county about five miles from Spruce Pine. There are bands of corundum and garnet-bearing quartz-schist in the southern part of Clay county and the northern part of Rabun county, Georgia, on the slopes of Sealy mountain, which a Philadelphia company is now working for corundum, with garnet as a by-product. Practically all the garnet produced in North Carolina is manufactured into wheels sold as emery wheels. Codundum occurs in a narrow belt extending from Tallapoosa county, Alabama, to Trenton, N. J. The only mine in this belt producing corundum in 1901 is about eight miles southeast of Franklin, Macon county, North Carolina.

Working for Alabama.

The annual meeting of the Alabama Commercial and Industrial Association will be held at Gadsden July 9 and 10. Among the topics to be considered will be a business view of Alabama's new constitution, a technological school for Alabama, municipal problems and reforms, insurance rates and risks, diversification of industries, plantation life in Alabama, an Alabama exhibit at St. Louis, and river and harbor legislation. The association is composed of various commercial clubs in the State, and has worked systematically to increase its usefulness to the business men of Alabama. Mr. W. P. Lay of Gadsden is president, and Mr. L. L. Gilbert of Montgomery is secretary and treasurer.

Hugo Pizzotti, United States consul at Turin, Italy, is in this country trying to negotiate for the delivery of 4,000,000 tons of bituminous coal for export to Italy. It is thought in New York that the coal may be bought in Alabama.

A chamber of commerce has been organized at Harriman, Tenn., with eighty-three members, and with Messrs. J. D. Roberts, president; John Handly, vice-president; Burd Kurtz, secretary, and A. C. Jackson, treasurer.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SHORT LINE TO THE GULF.

Mexican Central Makes an Important Purchase and Will Save 800 Miles—Survey Towards Texas.

Mr. H. R. Nickerson, vice-president and general manager of the Mexican Central Railway Co., writes to the Manufacturers' Record from the City of Mexico as follows:

"The Mexican Central Company has not purchased the Hidalgo & Northeastern Railway, and it is not likely that it will do so. It did, however, purchase the Pachuca, Zacualtipan & Tampico Railroad and concession, and is now constructing the line to connect this property with the Mexican Central proper at Lecheria. It also has a large engineering corps in the field between Apulco, the end of the present constructed line, and Tampico. The present constructed line extends from Sandoval, a station on the Mexican Railway, to Apulco, with a branch from Tepenascasco to Santa Ana. The firm of Bell & Semmes have the contract for the grading between Lecheria and Sandoval. The country traversed by the proposed line is very productive, both on the tableland and in the tropics."

When this projected construction is completed the Mexican Central will have a direct short line through from the City of Mexico northeasterly to tidewater on the Gulf of Mexico at Tampico. It will be about 200 miles long. The distance between the two cities by the present route via Aguascalientes is 1000 miles.

It is also important to note that apparently well-founded reports are in circulation in Texas and the northern part of Mexico to the effect that the Mexican Central is to build northward from Monterey into Texas and connect with the St. Louis & San Francisco Railroad, which is now being extended from Brownwood to Brady. The distance between Monterey and Brady is about 300 miles.

A dispatch from Dallas, Texas, says that information from E. E. Styner, general superintendent of the Mexican Central Railroad, contains the statement that an extension of that road will be built into Texas and connection made with the St. Louis & San Francisco.

Mr. Styner is quoted in the telegram mentioned as follows:

"Surveyors have been at work north of Monterey, Mexico, for some time running lines in an endeavor to find the most feasible route. The actual route has not yet been determined, but it probably will be as direct a line as possible between Monterey and San Antonio, Texas. The Frisco is now extending its line in that direction, and it is well understood that it will reach San Antonio. A close alliance will be made with the newly-projected Monterey line for Mexican business."

Concerning this work and other activities of the Mexican Central, Philip C. Hanna, United States consul-general at Monterey, writes as follows:

"The ability of Americans in railroad management is again demonstrated in the improved condition of several lines in Mexico since they have been taken over by American companies. The Monterey & Mexican Gulf Railroad, extending from Monterey to Trevino and from Monterey to Tampico, was built for an American company, but soon passed into the hands of a Belgian corporation, under whose management the line deteriorated. Some time ago the Mexican Central, which is now an American property, purchased the Monterey & Gulf line. It is being put into first-class shape and extended from

Monterey to Torreon, where connection will be made with the main line of the Central. It is also understood that the Central will shortly construct a direct line from Tampico to Mexico City, will complete the line which is now building from Tampico to the Pacific coast, and, it is believed, will also build a line from Monterey to some point on the Rio Grande, connecting there with some other system of roads. Several surveys are being made, and there is evidence that this enterprise will shortly extend its lines to many parts of the republic where there are no roads, thereby developing rich parts of this country which at present have no means of marketing their products. These extensions will not only benefit Mexico, but will strengthen the trade relations with the United States."

Southern Pacific Land Congress.

The First Annual Congress of the Land and Immigration Agents of the Southern Pacific Railway system was held at Galveston, Texas, for the purpose of securing more cordial co-operation between the immigration department and the land agents of the line. There was an attendance of about 150 persons when the congress was called to order. The address of welcome was delivered by W. F. Armstrong, vice-president of the Galveston Business League, and the response was made by T. J. Anderson, assistant general passenger agent of the Southern Pacific at Houston, Texas. Among the subjects discussed at the meeting were the following: "Duties and Responsibilities of Land and Immigration Agents," "Land Owners, Land Agents and Railroads Working in Harmony," "Mills and Factories of Texas and How to Secure Same," "Texas—Past, Present and Future," "Would an Organization of Southern Pacific Land and Immigration Agents Be Beneficial to All Interests?" "Is the Land and Immigration Work Second in Importance to That of Any Other Line of Business?" "The Possibilities of the Coast Country," "Crops and Development of Southwest Louisiana," "Does It Pay to Be Honest in the Land Business?" "Galveston and Her Future," "Truck and Fruit Farming," "What Competition Have We in Securing People and Capital for Texas and How Best to Use It," "Crops and Development of North and Northeast Texas," "West and Southwest Texas," "Rice Industry of the Gulf Coast Country," "Oil, Minerals, Iron, Marble, Granite, etc., of Texas and Louisiana," "Sugar Industry of the Gulf Coast Country," "Dairy Interests," "Cotton, By-Products and Cotton Factories," "Valuable Timber of Texas for Manufacturing Purposes and Lumber Interests," "What, if Anything, Stands in the Way of the Further Settlement and Development of the Vacant Land in Texas and the Upbuilding of the State Generally?" "Responsibility of Large Land Owners of Texas," "Agricultural and Mechanical College and Experimental Stations," "Home Owners vs. the Tenant System of Farming," "Best Way to Market Produce," "Forage and Food Supply for the State of Texas," "Other Products of the Rice Belt," "What Is the Southern Pacific Doing for Immigration?" "Are Our Laws Injurious to the Interest of Capital?" "Area of Texas Compared with Other States," "Manufacturing Interests, State of Texas and Louisiana," "Fish and Oysters," "Bank Clearances of the Leading Cities of the State," "Irrigation by Deep Wells vs. Canals," "What Does Louisiana and Texas Offer Homeseekers in the Matter of Health, Climate, Schools and Society?"

Permanent organization was effected by the election of the following officers: President, George M. McKinney, Chicago; first vice-president, John Howard,

Houston; second vice-president, S. Billow, Houston; secretary, Frederick C. Pickert, Chicago; treasurer, George Greybill, Shelbyville, Ill. Fifteen additional vice-presidents were also chosen.

BUILDING TOWARDS PONTOTOC.

A 100-Mile Contract on the Mobile, Jackson & Kansas City.

The Mobile, Jackson & Kansas City Railroad Co. is pushing its plans to bridge the gap existing between the present northern terminus of its line at Hattiesburg, Miss., and Pontotoc, in the same State, which is the southern terminus of the Gulf & Chicago Railroad, recently purchased by the first-named corporation. The distance between the two points is about 200 miles, with Decatur halfway. Mr. F. B. Merrill, president and general manager of the Mobile, Jackson & Kansas City, writes to the Manufacturers' Record as follows:

"We have placed under contract the extension of 100 miles from Beaumont, Miss., to Decatur, Miss., the general contractor being the Gulf City Construction Co.

"This firm has let the grading and cutting of right of way to Messrs. Smith & Merrill, now of Hattiesburg, Miss. The furnishing of piles and driving of the same was let to Mr. G. R. Anderson of Hattiesburg, Miss. The contract for steel bridges across Leaf, Boco Homo and Tallahoma rivers was let to Messrs. Snare & Triest, 39 Cortlandt street, New York city.

"The Gulf City Construction Co. is establishing tie camps and getting out its own ties and also framing all timber. The contract for 2,500,000 feet of timber to be used on bridges, etc., was awarded to the Rose Lumber Co., Merrill, Miss. Rails and all fastenings are being furnished by the Pennsylvania Steel Co.

"The Mobile, Jackson & Kansas City Railroad Co. has recently bought the Gulf & Chicago Railroad, and takes over the operation of same July 1, 1902."

The extension now to be built will run northerly from Hattiesburg through Perry, Jones, Jasper and Newton counties to Decatur, and when the further extension to Pontotoc is made it will probably proceed through Neshoba, Winston, Oktibbeha, Clay, Chickasaw and Pontotoc counties. The completion of this line is expected to give the St. Louis & San Francisco Railroad an outlet to the Gulf of Mexico, as the latter connects with the Gulf & Chicago at New Albany, Miss., a short distance above Pontotoc.

A NEW LUMBER ROAD.

Plans for Building Sixty Miles of Line in Mississippi.

The charter of the Tallahatchie Railway Co. has been filed at Jackson, Miss. It is for a railroad which is already under construction from a point near Chunkey Station, on the Alabama & Vicksburg Railroad, eleven miles west of Meridian, Miss., northward to Philadelphia and Louisville, Miss. The incorporators are James Meehan, R. W. Meehan and Patrick Meehan of Milwaukee, Wis.; J. H. Wright and William Hall of Meridian, Miss., and S. R. Rounds of Siding, Miss. The Meehans are large lumber dealers, and James Meehan is extensively interested, it is stated, in the timber lands through which the line will run. While the road will be primarily a lumber line, it will also conduct a regular freight and passenger business as a common carrier.

At the point where the new line leaves the Alabama & Vicksburg road a site has been purchased by Mr. Meehan, and he has begun the erection of a lumber mill, which, it is stated, will cost \$250,000. The railroad will have its terminus at

that point, but under traffic arrangements with the Alabama & Vicksburg Railroad its trains will run over the latter's line to Meridian.

Six miles of grading have been completed on the new road, the route of which will be northward from a point five miles east of Chunkey along the line between Lauderdale and Newton counties, and thence northeasterly through Neshoba county to Philadelphia, whence it will be further extended to Louisville, in Winston county. This will make a line about sixty miles long, paralleling the Mobile & Ohio, and it is expected to connect with the Illinois Central's line fifteen miles north of Louisville. The road will cut through part of the country in which the Mobile, Jackson & Kansas City proposes to build its line from Hattiesburg via Decatur to Pontotoc.

EXTENSIONS IN TEXAS.

Orange & Northwestern to Build Important Lines—The "Katy" Reported Interested.

The Orange & Northwestern Railway Co. of Texas has filed an amendment to its charter, providing for three extensions, two of considerable dimensions. One of these is from a point on the eastern boundary of Jasper county for a distance of 150 miles northerly to Marshall, passing through Newton, Jasper, San Augustine, Sabine, Shelby, Panola and Harrison counties. Another is from Buna north-west 195 miles to Corsicana through Jasper, Angelina, Trinity, Palestine, Anderson, Freestone and Navarro counties. The third extension is to be from West Orange to South Orange, five miles. The capital stock of the company is to be increased from \$200,000 to \$400,000.

The Orange & Northwestern is at present only thirty miles long, extending from Orange, Texas, northwest to Buna, which is a station on the Atchison, Topeka & Santa Fe. It is stated that the Missouri, Kansas & Texas has guaranteed the bonds of the Orange & Northwestern, and that the latter's extensions are in the interest of that system. It is also reported that the M. K. & T. is considering a plan to build from Orange to New Orleans.

The further announcement is made that the Missouri, Kansas & Texas has completed negotiations to purchase the franchise and right of way of the Trinity, Cameron & Western Railway. Thirty miles of grading have been completed between Granger and Georgetown, and the new purchasers, it is stated, will build eastward 125 miles, connecting at Trinity with the Trinity & Colmesneil line of the M. K. & T., which is now isolated from the rest of the system. Then an extension would be built east from Colmesneil, connecting with one of the lines from Buna.

N. ORLEANS & SOUTHWESTERN.

Further Plans for Constructing a Louisiana Electric Railway.

The New Orleans & Southwestern Railway, of which Mr. C. R. Young of Thibodaux, La., is general manager, has awarded a contract, it is reported, to Stauffer, Eshleman & Co. for \$250,000 worth of copper wire. This road, as heretofore stated in the Manufacturers' Record, is to extend from Hahnville, on the Mississippi river, to Montague, near the Gulf of Mexico, but it will run trains, it is understood, into New Orleans over the Yazoo & Mississippi Valley Railroad.

Mr. Young is quoted as stating that the line will be extended north next year to include Donaldsonville, Napoleonville and Lockport. He is further quoted as saying that the road will be equipped with electric locomotives of 640 horse-power and costing \$17,500 each; that the passenger coaches will be fifty feet long and fur-

nished in a most modern style. He also says that the company has sufficient capital to assist in starting saw-mills, furniture factories, canning houses and other industries along its route, which lies through a densely-populated part of the State, rich in natural resources. A repair shop will be erected at Thibodaux, which is headquarters. The officers are C. P. Shever, president; C. R. Young, general manager; H. L. Lancaster, treasurer, and Thomas A. Badaux, secretary. The company is said to be backed by a Boston syndicate, and a bond issue of \$2,000,000 has been made to build the section between Hahnville and Montague, seventy-seven miles.

'Frisco and Seaboard.

Mr. B. L. Winchell, vice-president and general manager of the St. Louis & San Francisco Railroad, while at Birmingham, Ala., recently, said:

"We are going to make the Kansas City, Memphis & Birmingham division a first-class road in equipment, service and all other respects. It will be improved and made adequate for any demand that may be made upon it by the growth and development of the Birmingham district and the rest of the territory which it traverses. An assistant superintendent will be located in Birmingham, such an official having been made necessary by the great increase of business at this point."

The Seaboard Air Line Railway, which is on friendly relations with the 'Frisco, and which is expected to give the latter an outlet to tidewater on the Atlantic coast, has bought property in Birmingham amounting to \$272,625, which will be used for terminal facilities. It has a frontage of 5600 feet on Avenue A, besides a number of other lots adjoining. It is reported that a freight depot is to be situated on two blocks of ground between Avenue A and Powell avenue and Eighteenth and Twentieth streets. Surveys are actively being made for the extension to Birmingham of the East & West Railroad of Alabama, the extension to start from Coal City.

Macon Street Railway Deal.

Messrs. John L. Williams & Sons of Richmond and J. W. Middendorf & Co. of Baltimore are negotiating, it is understood, for the purchase of the street railway, electric light and power plants of Macon, Ga. There are two companies.

The Macon Consolidated Street Railroad Co. is a standard-gauge line of twenty and one-half miles, with thirty cars and one power station. The capital stock is \$500,000, and the funded debt \$350,000 in 5 per cent. 30-year bonds. The officers are P. L. Saltonstall, president; H. E. Boothby, secretary; S. Reed Anthony, treasurer, all of Boston, Mass.; E. E. Winters, general superintendent at Macon. The board of directors is composed of Messrs. Saltonstall, Anthony and Winters, together with Stillman F. Kelley of Cambridge, Mass., and A. L. Miller of Macon.

The Macon Electric Light & Railway Co. is also a standard-gauge road seven miles long, with fifteen cars. The company has \$100,000 stock and an outstanding funded debt of \$100,000 in 6 per cent. 30-year bonds. The directors are T. J. Carling, J. H. Hertz, J. W. Cabaniss, H. Horne and M. Haft. Mr. Carling is president and general manager, and Mr. Hertz, secretary and treasurer. J. T. Nyhan is general superintendent.

James River Railroad.

The James River Railroad Co. has been organized at Portsmouth, Va., under a charter obtained two years ago from the legislature of that State. It is authorized to build a railroad as far as the West

Virginia line via Smithfield, Suffolk and Richmond. It is stated that tracklaying is to begin on the Smithfield, Portsmouth and Suffolk division within two weeks, 80-pound rails being put down, and that this division will be operated by electricity. The officers of the company are Congressman H. L. Maynard of Portsmouth, president; Gustavus Ober of Baltimore, vice-president; A. J. Phillips, treasurer; John L. Watson, secretary. Baltimore capital is interested in the line. They are the directors, the board also including T. J. Wool.

It is stated that Messrs. Maynard, Phillips and Watson are closely affiliated with prominent banking and railway interests, and that they are about to establish a steel-manufacturing plant at Pinner's Point, Portsmouth. It is supposed that the railroad is designed to ultimately reach the West Virginia coal fields.

Three routes have been surveyed, and rights of way are being secured for the line, which will run through a section not now enjoying any railway facilities.

NEW LINE IN GEORGIA.

Apparent Meaning of a Road from Louisville to Wrens.

A letter from Louisville, Ga., to the Manufacturers' Record says that Col. W. L. Phillips is pushing a plan to build a railroad north from Louisville to Wrens, about eighteen miles, and that the construction of the line is to begin within two months. Wrens is a station on the Augusta Southern Railroad, which is in the Southern Railway system.

Taken in connection with the announcement made by the Wadley & Mt. Vernon Railroad Co. in the last issue of the Manufacturers' Record, this appears to be part of a plan to build a line through the central part of Georgia to connect Augusta, on the South Carolina border, with Valdosta, in the southern part of the State. The Wadley & Mt. Vernon runs south from Wadley to Kixville, thirty miles, and Wadley is connected with Louisville on the north by a line ten miles long. The Wadley & Mt. Vernon proposes to build north from Valdosta to Sirmans, twenty-seven miles, and when this line is built about 100 miles of new line would remain to be constructed to connect the northern and southern parts of that railroad.

Extensions Proposed.

The Suffolk & Carolina Railway, owned by Baltimore capitalists, and which extends southward from Suffolk, Va., to Mavaton, N. C., forty-one miles, is to be extended to Edenton, N. C., a distance of about five miles, while another extension of about twenty-five miles will be built to Elizabeth City. One of the extensions will run through the timber lands of the Dismal Swamp district. The plans also propose to convert the road from a narrow-gauge to a standard-gauge line, and to accomplish these changes and improvements \$500,000 of bonds are to be issued. At the same time the first mortgage bonds will be reduced from \$160,000 to \$90,000. It is stated that work will be completed in about a year.

High Point's Electric Line.

The People's Transportation & Power Co. has been organized at High Point, N. C., to construct the proposed electric railway from Thomasville via High Point to Greensboro, and from High Point to Kernersville, and thence to Winston-Salem. The officers are: President, D. A. Waters; vice-president, H. B. Sawyer; general manager, Cliff B. Elder of Philadelphia, and E. D. Steele of High Point, secretary and treasurer. The capital is \$500,000. The president is a member of the firm of Cresswell & Waters of Philadelphia, and

the others are engineers and practical street-railway men. The franchise and rights of way have been secured, the survey is under way, and grading is expected to begin soon.

Rutherfordton to Asheville.

Advices from Asheville, N. C., state that George T. Caris has been awarded the contract for building the Rutherfordton, Hickorynut Gap & Asheville Railroad, which is to extend from Rutherfordton, on the Seaboard Air Line, to Asheville, and thence to the Tennessee State line. Construction will begin at Rutherfordton, and will be pushed northwest via Fairview to Asheville. The distance from Asheville to Rutherfordton is forty miles. It is reported that the Seaboard is interested in the project, although this is denied by gentlemen connected with that company. An extension will, it is also stated, be built from Rutherfordton to Columbus.

A Six-Mile Connection.

Mr. A. L. Atkins, president of the Business Men's League of Arcadia, La., writes to the Manufacturers' Record as follows: "The Business Men's League proposes building a connection six miles long with the Louisiana & Northwestern Railroad. They will seek to vote a subsidy of a five-mill tax on \$750,000 worth of property for ten years. They expect to soon be ready for offers of steel rails, new or partly worn, say from forty-five to fifty-six pounds; also an engine, say of thirty tons, and other rolling stock. They will offer to negotiate a loan on the road, mortgaging the line and tax for security. They invite correspondence."

A Beautiful Souvenir.

Nothing could be finer in its way than the publication just sent out by the Santa Fe passenger department in commemoration of the visit of the American Traveling Passenger Agents to California last November. It contains reproductions of characteristic photographs of Indian scenes, Arizona cloud effects and other objects that attract the eye along the Santa Fe route from Chicago to the Golden Gate. This beautiful book, which would be a pleasing souvenir to anyone who has been along the route, may be obtained by addressing Geo. T. Nicholson, passenger traffic manager of the Santa Fe, Chicago.

Laurens to Clinton.

Mr. S. G. McDaniel of Laurens, S. C., writes to the Manufacturers' Record as follows:

"Subscriptions are being taken for the purpose of building an electric railroad between Laurens and Clinton, S. C., a distance of nine miles. Myself, R. A. Cooper and Hy. Simpson are working it up, and are meeting with success. No definite organization has been formed as yet, but from the present outlook we expect to organize soon."

Mr. McDaniel is roadmaster of the Charleston & Western Carolina Railway Co.

Norfolk & Western's Work.

Mr. L. E. Johnson, vice-president and general manager of the Norfolk & Western Railway Co., writing from Roanoke, Va., to the Manufacturers' Record, denies the report that the company will spend \$500,000 for betterments north of Kenova, but also says:

"The Norfolk & Western is doing considerable work in the way of reducing curves, cutting down grades and putting in permanent bridges over the entire system, and putting in sections of double track on various parts of the main line."

Reported Plans to Extend.

The Chicago, Rock Island & Pacific Railway, according to reports, will extend the Choctaw, Oklahoma & Gulf, now completed to Amarillo, Texas, to Albuquerque, N. M., as originally planned by the former owners of the Choctaw. The Rock Island has also secured the right to build a line from Enid, Okla., through the Fort Supply military reservation, in the western part of Oklahoma, to connect in Beaver county with the El Paso extension of the Rock Island. This line will be 200 miles long.

Railroad Notes.

The Hampton Roads & Electric Company has completed its line between Hampton and Newport News.

The promoters of the Bennettsville & Osborne Railroad Co. in South Carolina have declared their intention to change its name to the Bennettsville & Cheraw Railroad Co.

The first section of the Oklahoma City & Western Railroad, an extension of the St. Louis & San Francisco, has been opened for business. It extends from Oklahoma City forty-one miles to Chickasha.

The new shops of the Southern Railway at Tusculum, Ala., have been completed by the contractors, J. P. Elliott & Co. of Hickory, N. C., and it is expected that the plant will be placed in service by July 1.

Mr. J. B. Hutchinson, general manager of the Pennsylvania Railroad Co., writes from Philadelphia to the Manufacturers' Record, saying: "There is no truth in the rumor that the company has secured control of the Washington & Portsmouth Railroad in North Carolina."

By the recent completion of a railroad from Jesup to Folkston, Ga., the Southern Railway has shortened the distance twenty-seven miles from Savannah to Jacksonville, and proposes on July 1 to begin operating its passenger trains via Savannah to and from Jacksonville.

The North Texas Traction Co. has opened its electric line connecting Fort Worth with Dallas. The formality was accompanied by a celebration attended by about 300 persons, including gentlemen from Cleveland, Ohio, and Philadelphia, Pa., who are interested in the company.

Mr. W. G. Van Vleck, vice-president and general manager of the Texas & New Orleans Railroad Co., writes from Houston, Texas, to the Manufacturers' Record, saying: "As yet no definite conclusion has been arrived at with reference to building a line to the Sour Lake oil field."

Mr. J. T. Harahan, second vice-president and general manager of the Illinois Central Railroad, writes to the Manufacturers' Record that the Yazoo & Mississippi Valley Railway Co., which is an Illinois Central corporation, has let contract for the construction of a line from Belzona to Yazoo City, Miss., 25.6 miles.

Working for Huntsville.

[Special Cor. Manufacturers' Record.]

Huntsville, Ala., June 25.

The Huntsville Chamber of Commerce has elected the following officers: Messrs. R. E. Pettus, president; Jas. A. Ward, vice-president; Chas. P. Lane, secretary, and H. J. Lowenthal, treasurer. The annual reports of the different committees and the open work of this organization shows a healthy increase along commercial and industrial lines above any preceding year. President Pettus announces that the Chamber has a number of important industries on its string, and has reason to believe that a successful deal will be closed soon for the location of several of them.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Greensboro's Denim Mills.

Further particulars regarding the extensive denim manufacturing plant, reported last week to be built at Greensboro, N. C., have been announced by the projectors. The site purchased includes about 2000 acres adjacent to and just north of the city. The Proximity Manufacturing Co., of which Caesar Cone is president, will own and operate the new plant, but to facilitate keeping separate records of the operation of its two mills, the new plant will be known as "The White Oak Cotton Mill." The mill proper will be situated about a mile north of the present plant, main building to be three stories high, 150x750 feet, with the necessary additional structures for engine and boiler rooms, dyehouse, warehouses, etc. The mill proper will be surrounded by more than 600 cottages, also churches and schools, all to be built by the company for the exclusive use of its operatives. The textile equipment will include, as was stated last week, 60,000 spindles and 2000 looms, for the operation of which about 2500 hands will be required. This means an addition of at least 6000 people to the community. The present mill village and the new one will be connected by a broad avenue, graded and macadamized, and both communities will be provided with modern conveniences and sanitary improvements, such as pure water, scientific sewerage system, electric lighting, etc. About \$1,250,000 will be the total investment, as was stated last week. The product will be exclusively indigo blue denims. The company's present mill, now operating 1000 looms on the same fabric, will be immediately increased by 200, which will give, with the new plant, a total of 3200 looms. This, it is claimed, will make the company the most extensive producer of denims in the world. An idea of the volume of business to be conducted is gained in considering that the annual production will be fully 50,000,000 yards of cloth, amounting to about \$5,000,000. The promoters of this important industry believe their plan involves the most important development in cotton-mill building which has been launched in the South. It is expected that it will require about a year's work to complete this extensive enterprise.

A \$12,500 Knitting Mill.

Announcement was made last week of the incorporation of the Crescent Hosiery Co. at Nashville, Tenn., with capital of \$12,500. The company intends to locate the plant at Niota, Tenn., and contract for construction of building has been let to W. R. Harper of Cleveland, Tenn. A steam power plant and knitting machinery have been bought, and an electric plant will be wanted. Messrs. H. M. Wilson, J. C. Cate, H. B. Burn and W. F. Forrest are the incorporators.

New England Mill Men.

The seventy-third meeting of the New England Cotton Manufacturers' Association will be held in the hall of the American Society of Mechanical Engineers, 12 West 31st street, New York city, in accordance with the invitation of the council of that society. While all

the arrangements are not completed, it is expected that the opening session will be held on the evening of Tuesday, September 30, and that the subsequent sessions will be held on Wednesday forenoon and evening and on Thursday forenoon and afternoon. Although the papers will embrace a wide range of topics, yet it is expected that especial attention will be given to the baling, shipment and grading of cotton.

Textile Notes.

Tavora Cotton Mills of Yorkville, S. C., states that there is no truth in the report that it will install looms and other machinery.

It is rumored that Messrs. J. Q. Gantt & Sons will erect a cotton mill near Burlington, N. C., site for same having been purchased.

Messrs. White, Williamson & Co. of Saxapahaw, N. C., will soon construct another dam and enlarge cotton factory. They are now operating 5000 spindles and 100 looms.

It is reported that the Virginia Cotton Mills of Swepsonville, N. C., will double its plant of 15,000 spindles and 300 looms. That would necessitate an expenditure of about \$100,000.

The Newport News (Va.) Knitting Mill was destroyed by fire this week, at a loss of \$20,000. The insurance nearly covers the loss, but it has not been stated if the plant will be rebuilt.

Newberry (S. C.) Knitting Mills has decided to install a complete dyeing plant. The company made a single sale of 1200 dozen pairs of hosiery last week. It operates twenty-five knitting machines.

Limestone Manufacturing Co. of Gaffney, S. C., purposes to double the size of its present plant, but it is hardly probable that work will be undertaken this year. Its present mill has 12,500 ring spindles and 300 looms.

The proposed company of J. B. McPhaul of Poulton, Ga., mentioned last week, has organized as Poulton Cotton Mills, and will arrange at once to install textile machinery. The company has buildings and power complete.

New York and Boston parties have purchased Bluff City Cotton Mills of Memphis, Tenn., and it is said will expend \$60,000 for new machinery and to put the plant in operation. J. H. Soery, care Peabody Hotel, has been negotiating this transfer.

It is proposed to organize a company, with capital of \$100,000, to build a cotton factory at Little Rock, Ark. A plant of 5000 spindles and 150 looms, to produce cloth, is proposed. George R. Brown, secretary of Board of Trade, is interested in the movement.

Onachita Cotton Mills, Monroe, La., which was completed recently, has a portion of its machinery in operation producing yarns. Its equipment is 2500 spindles and 75 looms, which will all be producing as soon as the necessary operatives can be secured.

Weatherford (Texas) Cotton Mills, reported recently as organized, held a meeting of stockholders during the week to consider character of plant to be built. It was determined that a mill of 3500 spindles for manufacturing hosiery yarns be equipped. Capital is \$50,000. J. A. Fant is president.

Canton (Ga.) Cotton Mills' additional looms, announced last week, will number fifty, not 100 as was stated. The dyeing plant will also be installed. Contract for the improvements has been let to O. A. Robbins of Charlotte, N. C., who will also be the architect in charge. All the machinery has been purchased.

The stockholders of Saxon Mills, Spartanburg, S. C., met last week and authorized the recent decision of directors to increase capital from \$200,000 to \$400,000. This action was merely the legal routine, as the additional plant had been contracted for and is now in course of construction. Complete details were given in our issue of May 22.

Buffalo Cotton Mills, Union, S. C., has decided upon the installation of a 20-ton ice plant, 10-ton cottonseed-oil mill, cotton-ginning system and two hydraulic rams. L. G. Young, the company's engineer, has entire charge of construction and installation, and is inviting estimates on the plants from manufacturers. This company owns a \$600,000 mill.

Monbo (N. C.) Manufacturing Co. has increased capital stock from \$50,000 to \$60,000. This amount will be expended for new machinery, contract for which has been closed. This machinery includes three revolving flat cards, six deliveries of drawing, one speeder—120 spindles, 416 spindles—two frames, all being made by the Saco & Pettee Machine Shops of Newton Upper Falls, Mass.

Dr. H. A. Ligon of Spartanburg, S. C., will organize company to build a \$200,000 cotton-manufacturing plant. He has made a visit to Northern financial centers in the interest of the enterprise, and its establishment is practically assured. Such details as number of spindles and looms, character of product, daily capacity and others have not been determined yet. Dr. Ligon will be president and treasurer.

Ninety-Six Cotton Mills, Ninety-Six, S. C., reported last week at length, has received charter, and is making immediate arrangements to construct plant. Besides Messrs. E. M. Lipscomb of Ninety-Six and Ellison A. Smyth of Pelzer, the incorporators are J. P. Phillips and R. S. Nichols, both of Ninety-Six; J. K. Durst and A. F. McKissick, both of Greenwood, S. C. Three of these incorporators are presidents of cotton mills. The other complete details were presented last week.

QUOTATIONS OF COTTON YARNS.

By Buckingham & Paulson, New York, Philadelphia and Chicago, June 24.

No. 10s-1 and 12s-1 warps.....	13 1/2 @ 14
No. 14s-1 warps.....	14 1/2 @ 14 1/2
No. 16s-1 warps.....	15 1/2 @ 15
No. 20s-1 warps.....	15 1/2 @ 15
No. 22s-1 warps.....	15 1/2 @ 16
No. 26s-1 warps.....	16 1/2 @ 16
No. 6s to 10s yarn.....	13 1/2 @ 14
No. 12s-1.....	14 1/2 @ 14
No. 14s-1.....	14 1/2 @ 14
No. 16s-1.....	15 1/2 @ 15
No. 20s-1.....	15 1/2 @ 15
No. 22s-1.....	15 1/2 @ 15
No. 26s-1.....	16 1/2 @ 16
No. 8s-2 ply soft yarn.....	14 1/2 @ 14
No. 10s-2 ply soft yarn.....	14 1/2 @ 14
No. 8s-2 ply hard.....	13 1/2 @ 14
No. 10s-2 ply hard.....	14 1/2 @ 14 1/2
No. 12s-2 ply.....	14 1/2 @ 14 1/2
No. 14s-2 ply.....	15 1/2 @ 15
No. 16s-2 ply.....	15 1/2 @ 15 1/2
No. 20s-2 ply.....	16 1/2 @ 16 1/2
No. 24s-2 ply.....	16 1/2 @ 17
No. 26s-2 ply.....	17 1/2 @ 17 1/2
No. 30s-2 ply.....	18 1/2 @ 18 1/2
No. 8s-3, 4 and 5 ply.....	13 1/2 @ 14
No. 20s-2 ply chain warps.....	15 1/2 @ 15 1/2
No. 24s-2 ply chain warps.....	17 1/2 @ 17
No. 26s-2 ply chain warps.....	17 1/2 @ 17 1/2
No. 20s-2 ply hard twist.....	15 1/2 @ 15
No. 24s-2 ply hard twist.....	15 1/2 @ 15
No. 26s-2 ply hard twist.....	16 1/2 @ 17

Prices nominal; market very dull.

Cottonseed-Oil Notes.

The Brownsville Cotton Oil Co. of Shelby county, Tennessee, has been chartered, with a capital stock of \$50,000. The incorporators are John W. Campbell, Daniel Bond, R. G. Browning, W. S. Roberts and Hill Bond.

The Rose City Cotton Oil Co. of Little Rock, Ark., has been incorporated, with a capital stock of \$50,000. The officers are Messrs. T. H. Burch, president; Justin Mathews, vice-president; G. N. Reay, secretary and treasurer; L. H. Conley, manager. Contracts for machinery and buildings have been placed.

The Logan County Cotton Oil Co. of Paris, Ark., has been chartered, with a capital stock of \$50,000, of which \$25,550 has been subscribed. The officers of the company are W. H. Jones, president; Geo. M. Zeller, vice-president; Anthony Hall, secretary, and W. R. Cherry, treasurer.

The Arcadia Cotton Oil Mill & Manufacturing Co. was organized on the 18th inst., with a capital stock of \$50,000, of which \$30,000 was subscribed by local people. The plant will be a two-press one of thirty tons capacity. The officers of the company are F. T. Taylor, president; L. F. Wakeman, vice-president; S. W. Smith, treasurer.

A company was organized last week at Longbridge, La., to be known as the Longbridge Cottonseed Oil Co., for the purpose of establishing a cottonseed-oil mill. Officers of the company elected are as follows: Oscar Bordelon, president; J. B. Perkins, vice-president; L. L. Bordelon, secretary; W. F. Joffrion, treasurer. The capital stock of the company is \$60,000.

The market for cottonseed products in Texas last week was dull and lower. Cottonseed oil was quoted on the 23d inst. at 35 cents for prime crude, loose, and 38 cents for prime summer yellow oil; linters, 2 1/2 to 2 3/4 cents, all f. o. b. mills at interior points in the State. Prime cottonseed meal was quoted at \$24.25, and cottonseed cake at the same figure, f. o. b. Galveston.

The Checotah Cotton Oil Co. of Checotah, I. T., chartered in Tennessee, has been formally organized, with the following officers: H. B. Spaulding, president, Checotah, I. T.; G. N. Henson, vice-president, Chattanooga, Tenn.; G. C. Bushnell, manager, Muscogee, I. T. The authorized capital stock is \$80,000. The mill is now under active construction, and the machinery ordered. The plant will be ready to begin operations by October 1.

The new cottonseed-oil plant which is being established at Cartersville, Ga., by the Southern Cotton Oil Co. will occupy a plot of six acres lying along the Western & Atlantic Railroad. The main building will be of brick, 52x100 feet; a seedhouse 30x100 feet and a hullhouse 32x100 feet will be frame structures. The buildings are to be completed by July 15, and the plant will be put in operation as soon thereafter as an initial supply of seed can be obtained.

The following are the official quotations on cottonseed and cottonseed products as posted at the Cotton Exchange in New Orleans on the 24th inst.: Prime refined oil in barrels, 43 1/4 cents per gallon; off refined oil in barrels, 42 1/4 cents per gallon; off crude, nominal per gallon; prime cottonseed cake, \$27.50 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, \$27 per ton of 2240 pounds; off do., nominal; soap stock, 1.50 cents per pound; linters, per pound—A, 3 3/4 cents; B, 3 1/2 cents; C, 3 1/4 cents; cottonseed in sacks delivered in New Orleans, \$16 per ton of 2000 pounds; in bulk delivered in New Orleans, \$15 per ton of 2000 pounds.

Charles M. Barnes, in an article in the San Antonio Daily Express, urges a careful search for oil in Southwest Texas. He recalls the fact that oil was found in San Antonio wells half a century ago, and that the first well in that portion of the country, intended to be an artesian well, was abandoned because it contained such a quantity of thick black oil that the water was of no use. Later in another well close by natural gas was discovered, and on a ranch seven miles southeast of San Antonio oil of a lubricating variety is now produced.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record.

Baltimore, Md., June 25.

Throughout the local lumber market the tone of trade is a very substantial one, accompanied, however, with no unusual activity. The volume of transactions during the past week has been very satisfactory. The demand for the prominent woods on the market is steady, and in a local way buyers are generally purchasing freely. Builders and yardmen are adding to their supplies, and from boxmakers and other woodworking concerns a fair inquiry is current. Receipts of lumber are liberal, and stocks generally ample for present wants. In North Carolina pine, however, there is a scarcity of certain grades, while the demand for this class of lumber continues liberal, both for domestic and foreign wants. Stocks of North Carolina pine in first hands are gradually becoming lower, while at all milling sections there is little, if any, accumulation. White pine is steady as to value, with the inquiry moderate. Cypress is in good request, and prices have shown considerable improvement during the present year. Poplar is still prominent as a wood, being in brisk demand, with values decidedly firm. The market for hardwoods is active and firm, with considerable difficulty in securing dry lumber which would sell rapidly. Stocks at all milling sections are readily taken on leaving the saw, and the demand during the past week from the usual sources has been much better. Foreign exporters of hardwoods in the local market pronounce the situation as somewhat improved.

Charleston.

[From our own Correspondent.]

Charleston, S. C., June 23.

The volume of business during the present month in the various channels of the lumber industry at this and adjacent points in the State has shown material improvement. The demand has been very steady from the usual sources, and prices for both yellow pine and cypress have ruled firm for all desirable material. Throughout the State the movement has shown an unusual volume of business, and at all interior milling points there is a healthy trade in progress. The development of hardwood territory is of special interest at the moment, and a number of woodworking concerns have been established this year in forest sections where hickory, ash, gum and other woods abound. New saw-mills along the various lines of road passing through the State are being established, and the output of lumber increasing. The crosstie industry is very active, and there is a constant demand from railroads for large and prompt shipments. At Georgetown the lumber business is on a most extensive scale, and the mills among the best equipped of any in the South. Shipments of lumber from Georgetown this year will show a remarkable increase over last. Shipments of lumber last week from Charleston aggregated 3,500,000 feet to New York and Philadelphia. The total shipments of lumber for the season aggregate 61,918,629 feet foreign and domestic, against 38,742,317 feet last season. There is a moderate demand for sail tonnage, and rates for lumber are about steady. The schooner James D. Dewell, 502 tons, was taken to load lumber last week at this port for Boston at \$6. New York rates are \$5.25.

Norfolk.

[From our own Correspondent.]

Norfolk, Va., June 23.

The approach of the national holiday usually has its effect upon trade, giving it a quieter tone for the time being, but in the lumber industry in this section business moves along as usual, and buyers are in the market anxious to secure stocks before another advance in prices. The tone of the market for North Carolina pine is decidedly firm for most grades, and there is a good demand existing, while stocks at mills are not accumulating to any great extent. Shipments of lumber during the past week have been better than usual, and for the present month a good record of shipments is recorded. The foreign demand for North Carolina pine is beginning to improve, and a number of shipments have been made during the month to United Kingdom and continental ports, while some good schedules are booked for July. There is considerable activity among planing mills, and dressed lumber is very firm, with an unusual demand. All woodworking concerns have plenty of orders, and are all running at their full capacity. The hardwood trade shows considerable improvement, and the foreign export business is better. Freights, both coastwise and foreign, are steady, with a moderate offering of desirable tonnage. Rates as recorded last week are shown in the following charters: The schooner Lucie Wheatley, 180 tons, was taken to load lumber here for New York at \$2.50, and the William D. Marvel, 358 tons, from Claremont to Boston with green lumber at \$3.

Savannah.

[From our own Correspondent.]

Savannah, Ga., June 23.

The week under review has been a fairly active one in many lines of the lumber industry of this section. A steady and substantial business with interior and Northern ports is in progress, and shipments continue liberal. Receipts of lumber have been fair during the present month, but are quickly absorbed by vessels awaiting cargoes. The meeting of the Georgia Saw-Mill Association at Tifton on the 17th inst. was a very enthusiastic one, representatives from both Georgia and Florida being present. The rules of the association regarding classification and inspection, commonly known as Savannah merchantable of 1883, were somewhat modified. Members of the association generally gave a favorable report of trade in their respective sections. The prospects are good for the opening up of a river lumber trade. It is stated that Messrs. Durden Bros. are to build an extension to their road, the Millen & Southwestern, from Millen to Hagasaga, a small landing on the Savannah river, and there connect with steamers for this city. There are a number of saw-mills located in the section through which the proposed extension will pass, and with cheap water rates it is expected large quantities of lumber, naval stores and cotton will come to this city. During the past week shipments of lumber have been fair, the following vessels clearing from the port: Schooner Rebecca J. Moulton for Boston with 375,889 feet; schooner Henry P. Mason for New York with 534,844 feet, and barkentine Glenafon for St. John, N. B., with 322,844 feet; steamer shipments of lumber aggregated 2,200,000 feet. The movement at Brunswick and adjacent points has been active, and the volume of trade increasing. Receipts of timber at Brunswick from the Ocmulgee, Ogeechee and other rivers are quite liberal, and reports from the various saw-mill sections are very satisfactory. Nearly all saw-mills have large orders, and many are running on double time in order to keep up with

their orders. Prices are generally firm for all desirable material. There is a fair offering of sail tonnage, and rates are generally steady for handy-sized vessels. Charters reported during the past week were as follows: Schooner George M. Grant, 1148 tons, from Savannah to Perth Amboy with ties at 14 cents; schooner Nimbus, 809 tons, from Savannah to Louisburg, C. B., with lumber on private terms; bark Edmund Phinney, 657 tons, from Savannah to Philadelphia with ties at 15½ cents; schooners Maud Palmer, 1520 tons, and Marie Palmer, 1594 tons, from Brunswick to New York with ties on private terms.

Mobile.

[From our own Correspondent.]

Mobile, Ala., June 23.

The local timber and lumber market continues to show a good volume of trade, and in sawn timber the shipments last week amounted to 208,755 cubic feet, and since September 1, 1901, the shipments aggregate 8,976,838 cubic feet, against 6,692,612 cubic feet last season. Prices of sawn timber continue firm at 16 cents, while some are holding their stock for 16½ to 17 cents. Last sales of 25 and 30 cubic feet average brought 16 cents. Hewn oak is in demand at 18 to 20 cents per cubic foot. Hewn poplar sells readily at 14 to 15 cents per cubic foot. Receipts of pine logs are liberal, 5000 and over arriving during the past week, for which there is a good demand at \$7 to \$10.50 per 1000 feet. The market for hewn timber is steady at 16 cents, and desirable lots would bring 16½ to 17 cents per cubic foot. There is a good business in lumber, and mills throughout this section are all busy. Along Pearl river the mills have a very heavy business, and at Pascagoula, Miss., the output for prime lumber for Europe is larger than usual. During the past week some large shipments have been made to the United Kingdom, and the steamer Athara cleared for Montreal, Canada, with 2,080,000 feet of lumber. Several shipments were also made to Havana. The total for the week aggregated 2,700,752 feet, and for the season 80,738,999 feet, against 90,561,921 feet last season. At Pensacola the timber market is steady, with the receipts quickly taken on arrival. Sales last week were at 15½ cents, with nothing off for X timber. The offering of tonnage is liberal, with low rates of freight. Charters reported were the bark Avicmore, 1043 tons, from Pensacola to Rio Janeiro with lumber at \$12.25; ship Ruby, 1383 tons, from Mobile to Buenos Ayres with lumber at \$11, June-July; British steamer Chatton, 2332 tons, from the Gulf to two ports Holland with timber at 75¢, July, and British steamer Salopia, 1549 tons, from Pensacola to United Kingdom or Continent with timber on private terms.

Beaumont.

[From our own Correspondent.]

Beaumont, Texas, June 22.

The extreme dry weather has only been interspersed here with a shower that has hardly done more than blister vegetation, and that has been the case all over Texas, causing the preachers to pray for rain, and it can readily be seen that with such prospects the lumber trade in Texas is not in good condition. The drouth has caused a falling off in the demand that is very great, and unless a copious rain comes soon there will be but little doing in Texas during the entire summer. The corn and cotton will both be failures, and that will make lumber in little demand. In the meantime Beaumont itself is holding up to the 5,000,000-foot mark easily, and that much lumber is being consumed here each month at prices that are most satisfactory to the parties selling. There is no

end to the building boom, and with the coming of Mr. Cox and his big steel smelter, meaning an expenditure in building of \$1,000,000, the same impetus will be given the lumber demand that came with the George A. Burt refinery. The demand for railroad material is getting better than it has been, due to the increasing rumors of new road and the general activity in railroad circles throughout Texas, Indian Territory and Kansas. The timbers and ties of all grades are in good demand at firm prices, running along practically on the same basis as last winter. The burning of the big Beaumont Lumber Co.'s saw-mill means that a double-band mill will probably be erected in its place, notwithstanding the persistent rumors that gain circulation to the effect that the Kirby Lumber Co. is going to rebuild in San Augustine county instead of here. Mr. Frank M. Aldridge and Theodore Wilkins gave out a positive statement that the mill would be rebuilt here, and until Mr. Kirby himself states otherwise it is, of course, the only thing to accept these statements, for they come from officials, who certainly should know.

Lumber Notes.

The Hampton Stave Co. of Fordyce, Ark., has amended its charter by increasing its capital stock from \$40,000 to \$120,000.

The Selma Furniture Co. of Selma, N. C., has been chartered, with a capital of \$12,500, by H. N. Egerton and other stockholders.

It is stated that G. A. Light and other capitalists of Lincoln county, Alabama, have formed a company to establish and operate a large stave mill at Flora, Tenn.

The dry-kiln of the Ezell Stave Co. at Camden, Ark., containing about 50,000 staves, was burned on the 15th inst. The loss is estimated at \$10,000, with no insurance.

The L. Fox saw-mill and yards on Lake Arthur, fifteen miles south of Jennings, La., were destroyed by fire on the 19th inst. The loss is estimated at \$20,000, with no insurance.

The Martin Furniture Co. of Hickory, N. C., has been incorporated, with a capital stock of \$50,000. The incorporators are Thomas J. Martin, J. M. Chiles, C. E. Wildman and W. W. Griffin.

The Lena Lumber Co. of Silicia, Ark., has been incorporated, with a capital stock of \$25,000. The incorporators are R. Faist, C. Faist, G. Faist, K. Wurz, J. Finkheiner and C. W. Lewis.

The Johnson Lumber Co. of Little Rock, Ark., has been chartered, with a capital of \$50,000, one-half paid up. The incorporators are John Dermott, W. F. Farrar, George W. Cleveland and William H. Johnson.

The shingle and saw-mill of the Keo Shingle Co., five miles west of England, Ark., was burned on the 19th inst. The loss on plant has not been estimated. It is stated that there was no insurance on the valuable properties.

The Helena Hoop Co. of Helena, Ark., has been incorporated, with a capital stock of \$12,000. The officers of the company are George F. Updegraff, president; B. F. Hobart, vice-president, and George F. Lyford, secretary and treasurer.

Messrs. Wood & Thompson of Tampa, Fla., have just completed and will start in operation this week one of the largest and best-equipped box factories in the South. The building is of brick, 105x172 feet, and the plant has a capacity of 16,000 boxes a day.

The shipments of lumber from the port of Mobile, Ala., last week aggregated 2,700,752 feet, and for the season 80,

738,999 feet, against 98,561,921 feet last season. Shipments of sawn timber last week were 208,755 cubic feet, and of hewn timber 54,938 cubic feet.

The loss on the recent fire in Louisville, Ky., which destroyed the plant of Turner, Day & Woolworth Handle Co.'s factory, is estimated at \$80,000. The loss is fully covered by insurance. After the work of adjusting the insurance is completed the plant will be immediately rebuilt.

Another large saw-mill is to be erected at McDonald, Ga., on the location of the large mill of J. S. Bailey & Co., burned a few days ago. Messrs. Bailey & Co. will probably sell their timber tracts to parties who will rebuild. Should they not sell, Bailey & Co. will rebuild.

In the section adjacent to Tullahoma, Tenn., old walnut stumps that have heretofore been regarded as worthless are now in demand at prices greater than those obtained for the whole tree. The stumps are made into veneering material and used in the manufacture of high-grade furniture.

The Muscogee Lumber Co., a portion of whose plant was recently burned at Muscogee, Fla., has commenced the rebuilding of its mills and dry-kilns. The contract for rebuilding has been awarded to the Johns-Manville Company, and when completed will be one of the best-equipped mills in the South.

The Georgia Saw-Mill Association met in regular monthly session last week in Tifton, Ga. A large attendance of representative lumbermen from both Georgia and Florida were present. In the business of the session the rules of the association regarding classification and inspection, commonly known as Savannah merchantable of 1883, were modified. Business was reported by all present as exceedingly satisfactory.

Messrs. F. H. Ketchum and A. L. Stilller of Burlington, Iowa, visited London, Tenn., last week for the purpose of establishing the Loudon Lumber Co. The company will use the building of the Tennessee Lumber Co., which is now being rearranged, and another large building will shortly be erected. The company has a capital of \$100,000. The present board of directors is composed of A. L. Stilller, president and treasurer; C. M. Levy, vice-president; F. H. Ketchum, secretary; W. Ketchum and E. P. McQueen.

The manufacturing plants and lumber-yards of Allen & Curry, Agurs & Kingsmore and the factory of the Snyder Wagon Co. and several outhouses and one residence at Shreveport, La., were destroyed by fire on the 17th inst. The plant of the Allen & Curry Manufacturing Co., including about 3,000,000 feet of lumber, was valued at about \$60,000, with insurance about \$22,000. Agurs & Kingsmore valued their plant at about \$30,000, with insurance \$5000. The factory of the Snyder Wagon Co. was valued at \$12,000, and insured for about one-third the valuation.

The following vessels cleared last week with lumber and other wood products from the port of Jacksonville, Fla.: Schooner Alice B. Phillips with 200,000 feet of lumber and schooner Thos. G. Smith with 410,000 feet for New York, and schooner Springfield for Boston with 500,000 feet of lumber; the Clyde steamer Navahoe for Boston with 200,000 feet of lumber, 1800 bundles of shingles and 2000 crossties, with other cargo; steamer Algonquin for New York with 325,000 feet of lumber and 4000 bundles of shingles, and steamer Iroquois for New York with 300,000 feet of lumber, 2800 crossties, 3500 bundles of shingles and other cargo.

MECHANICAL.

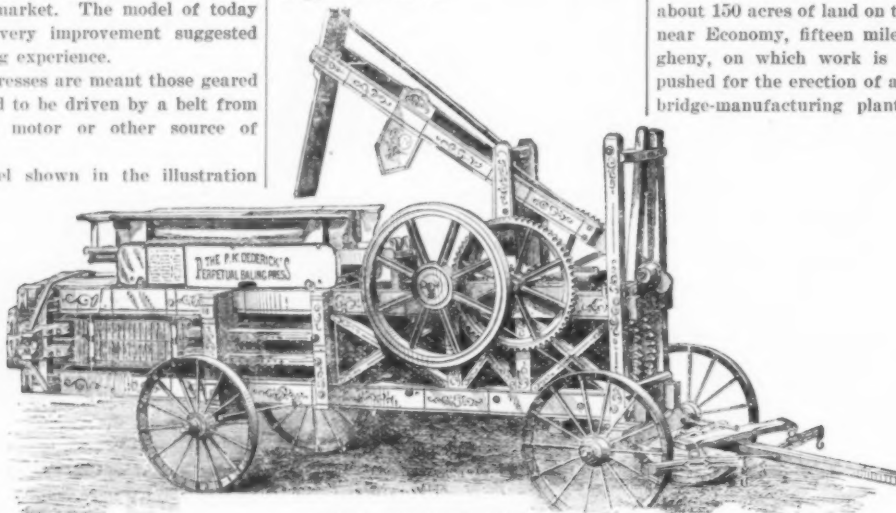
Wood-Frame Belt Press.

The accompanying illustration shows a wood-frame belt press, made by P. K. Dederick's Sons, Albany, N. Y. For thirty-three years this hay press has been before the farming public and on the American market. The model of today embodies every improvement suggested by that long experience.

By belt presses are meant those geared and adapted to be driven by a belt from an engine, motor or other source of power.

The model shown in the illustration

ing a crank toggle which is driven by a compound pinion and intermediate shaft, by which belt and balance wheel are geared. An automatic feed device is in use on this baler, enabling greater velocity and higher speed of feeding. An automatic shipping device is provided, by means of which the operation is instantly stopped or started.



WOOD-FRAME BELT PRESS.

claims many improvements and radical changes over previous models. Noise, rattle and hum of operation are now replaced by almost entirely noiseless running. It is said an ordinary conversation can be carried on across it while baling. Higher speed, with safety, is now possible.

These results have been accomplished by the substitution of steel for almost

An especially-designed condensing hopper, said to gain 50 per cent. in the amount of charge, is also provided on this machine. These presses have all advantages and patented devices common to continuous presses, such as positive folding roller, open feed orifice, open side bale chamber, spring retainer, etc. Capacity from one to four tons per hour. The wood-frame press is constructed

ing all requirements for a machine of this character.

The sole agents for the full line of P. K. Dederick's Sons for South Carolina are W. H. Gibbs & Co. of Columbia.

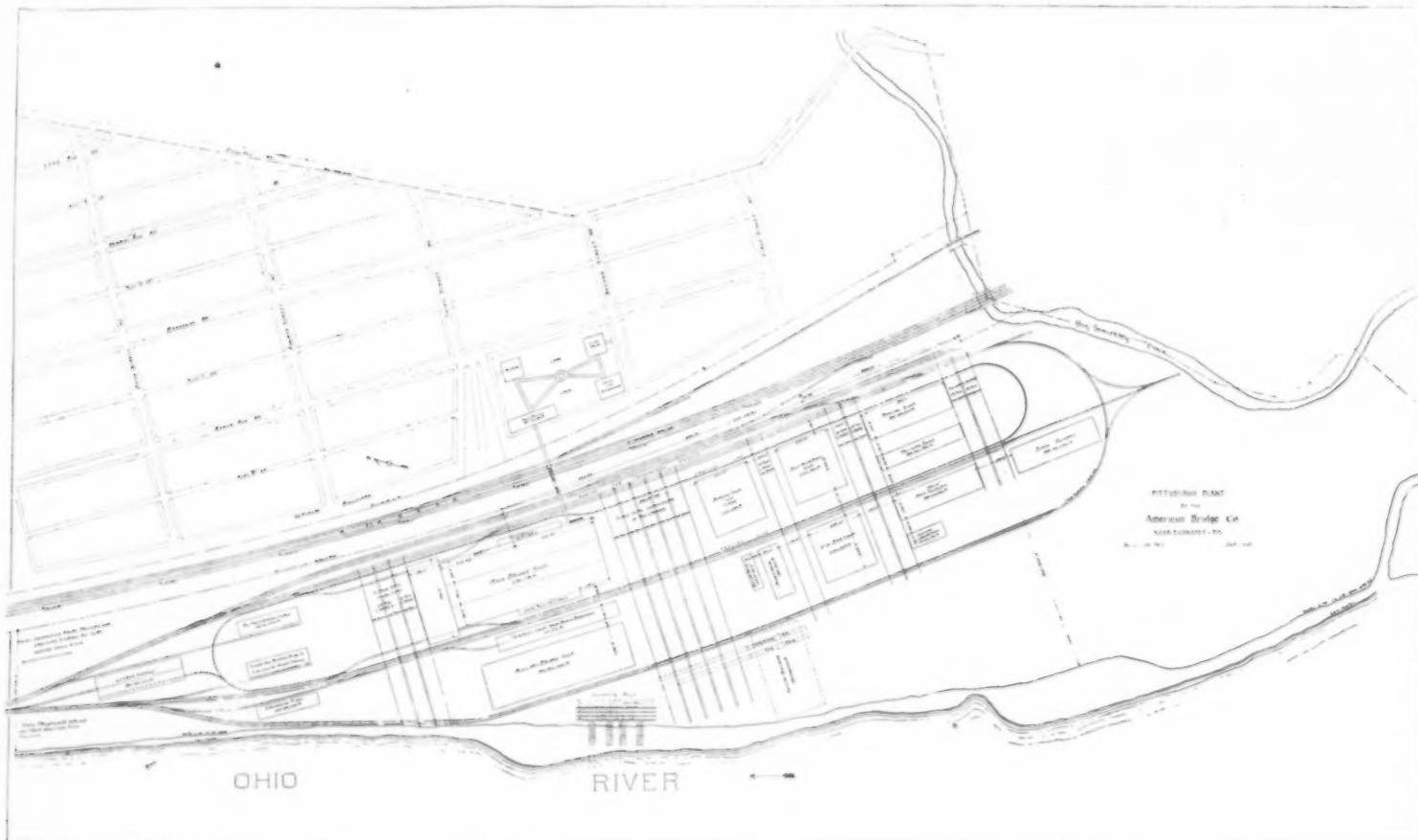
The Pittsburg Plant of the American Bridge Co.

The American Bridge Co. has acquired about 150 acres of land on the Ohio river, near Economy, fifteen miles below Allegheny, on which work is being rapidly pushed for the erection of a gigantic new bridge-manufacturing plant. One hun-

cate with all the shops and connect with the Pennsylvania lines. A belt line of three-foot gauge, to be operated electrically, also surrounds the works for the convenient transit of men and material. Near the center will be situated the receiving stockyard of the establishment, where all mill material is received and distributed for its passage through the shops. The entire plant is covered by a system of traveling electric cranes extending from the railroad towards the river, and covering all the principal shops. These cranes all have a uniform span of sixty feet, and are interchangeable on their respective runways. Toward the railroad end they connect with a gantry, which runs parallel with the tracks, by means of which cranes can be transferred from one point to another as convenience requires. An especially heavy crane can be placed on any runway to facilitate the handling of exceedingly heavy pieces.

The main bridge shop will be a massive building 270 feet wide by 780 feet in length, equipped with tools and handling appliances of modern design. At the discharging end of the shop facilities are provided for handling and machining structural members of over 100 tons in weight or over 120 feet in length. Many of the tools will be of special design, such as multiple punches for simultaneously punching standard beam connections, and punches with automatic tables or adjustable spacing racks. All revolving machinery will be electrically driven, no vertical belts being required, thus clearing the whole overhead area for the free use of electric hoists.

The general construction of the buildings of this plant will be steel skeletons thoroughly braced; all wall surfaces not



THE PITTSBURG PLANT OF THE AMERICAN BRIDGE CO.

all cast-iron parts. Wood is used on the case to strengthen it and to assist in deadening noise. Altogether a great reduction in weight and an increase in strength, safety and durability have been brought about.

The power of this press is simple and direct, consisting of two crank-wheels, between which a pitman is pivoted and connected direct to the traverser, thus form-

from the best seasoned hardwood, strongly rodged and ironed, the entire press case and bale chamber being lined with steel. The new automatic partition-dropping device, simple, positive and durable, is a feature of this machine.

The operation, construction and adjustment of these presses are such as not to soil the outside of the bale. In every way it is a twentieth-century product, meet-

structural material. The buildings will be substantial, permanent structures, all appliances having been devised in accordance with the latest experience and arranged for the most economical handling and production of material. Reference to the accompanying plans will indicate the general arrangement of the shops.

These are paralleled by a system of standard-gauge tracks, which communi-

glass will be filled with cement. The only combustible material used will be the wooden-plank sheathing for the roof.

Paralleling the main bridge shop, between it and the river, space is reserved for an auxiliary bridge shop, the exact dimensions and character of which will be determined later on. This shop will be fitted up for the fabrication of special structural work, such as highway bridges,

roofs and material generally of a lighter or more complicated type than that handled in the main bridge shop.

Between these two structural shops will be located a templet shop, which will be about sixty feet wide and 500 feet long. This building will be provided with ample facilities for handling and finishing templet lumber and distributing it in the most convenient manner throughout the shop.

Up the river, across the stockyard, the power-house is established in a central location. All the power of the entire plant will be concentrated here. For the present this will be derived from steam boilers, although gas engines have been considered, and may possibly be adopted later. Boilers to be installed are of the water-tube type, provided with automatic stokers and convenient facilities for handling fuel and ashes. The engines will all be of the compound type, designed to work under an initial pressure of 150 pounds, and to operate condensing.

Above the power-house is situated the hydraulic forge for eye-bars. It will contain two separate systems of hydraulic forging machinery, one set for finishing bars up to and including eight-inch widths. The other set will handle bars up to sixteen inches in width, with heads thirty-six inches in diameter. This latter system, it is said, will be the most powerful of its class in existence. The main upsetting machine will weigh 250 tons, almost entirely of steel, and is capable of exerting

arrangement of longitudinal traveling cranes, and in addition will be equipped with a system of traveling radial cranes for the convenience of individual operations.

The steel foundry is not yet sufficiently developed to describe, but as the use of steel castings is rapidly extending, it will be necessary to have at least as large a foundry for these as for iron castings.

The testing laboratory, in addition to the minor machines for tensile tests of steel specimens, will contain an equipment for testing cement, concrete and other building materials, and also a powerful machine for testing to destruction the largest eye-bars.

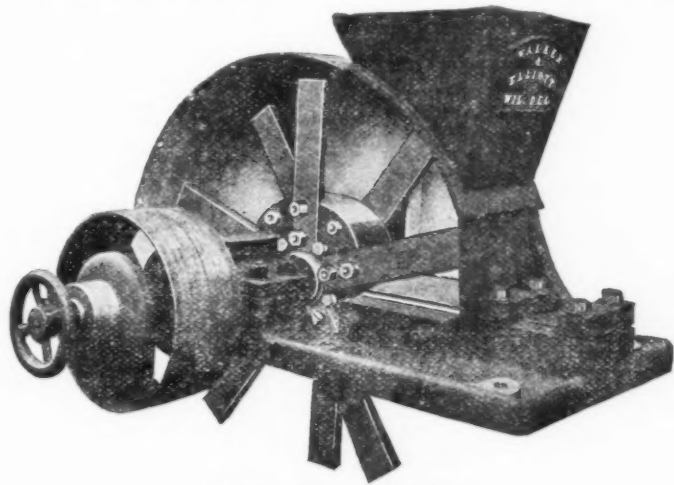
The main office will be located opposite the center of the works. It is the intention to make this office of sufficient size to afford convenient facilities and ample provisions for the officials of the plant. The dimensions of the office can be imagined from the fact that the draughting-room alone must be of sufficient size to accommodate 500 draughtsmen.

Ample land area is reserved for the manufacture of steel barges and similar river craft, which promises to be a large future industry.

Construction is proceeding rapidly, and manufacturing operations will begin during the coming year.

Double-Disc Pulverizer.

The new double-disc pulverizer shown in the accompanying illustration is an im-



DOUBLE-DISC PULVERIZER.

an upsetting pressure on the eye-bar of 1500 tons and a simultaneous vertical holding-down pressure of 3000 tons.

The bending and forge shop is situated next to the stockyard. Immediately above the forge shop is located a similar building containing all machinery of the establishment for producing rivets, bolts and nuts. It will have sufficient capacity to deliver about 1000 tons of rivets and bolts per month. Still further up river, as shown on the plan, are located the machine shop, pattern shop, iron foundry and testing laboratory.

The electric current from the central power station will be transformed by a multiple voltage system, so that currents of different potentials can be led to the tools and utilized for speed regulation. The motors on all principal tools will be directly attached, thus avoiding the interposition of belts and countershafts, leaving the overhead space, as in the main bridge shop, clear for handling appliances to serve the tools.

The pattern shop, which will be situated between the machine shop and foundry, will be equipped with the most modern and convenient appliances for this branch of the business.

The iron foundry will be a building of the same dimensions and style as the machine shop, containing the same general

improvement on the single-disc pulverizer which has been on the market for a number of years. It possesses all the good points of the old machine, with new and valuable improvements, and has double its capacity.

It has two sets of cutting bars, five in each, so spaced around the revolving head that one of the bars is at all times passing through one of the slots of the two cutting blocks. One or the other of the blades is at work on the material all the time.

The cutting bars are made of steel, and both sides of the slots of the two cutting blocks are steel bars, presenting sharp edges to the cutting bars, passing through them and offering the best resistance to the wear of the material on them.

The driving pulley is provided with a simple and effective friction arrangement, which, when set up, will drive the machine on any kind of work, but should any foreign material, such as iron, fall in the machine, the friction will slip and allow the pulley to run loose on the shaft.

Made of the best material and workmanship, simple in construction, effective in operation and low in price, this machine is particularly adapted for pulverizing lumpy acid phosphate and tailings, and for grinding steamed bones, tankage, fish scrap, oyster shells and other fertilizer

materials. It runs easy, requires but little power and has few wearing parts. These are easily and cheaply replaced. This improved double-disc pulverizer is manufactured by Walker & Elliott, Wilmington, Del., exclusively.

Jeffrey Package-Handling Machinery

The accompanying illustrations show a system of freight and package-handling machinery in use in the plant of the Nat-

to a variety of purposes, and is only a small portion of a large equipment which plays no small part in the economical handling of the different materials incident to the manufacture of the shredded wheat biscuit.

All of the machinery has operated perfectly since its completion, and requires practically no attention.

The installer of this machinery is the Jeffrey Manufacturing Co., Columbus, O.

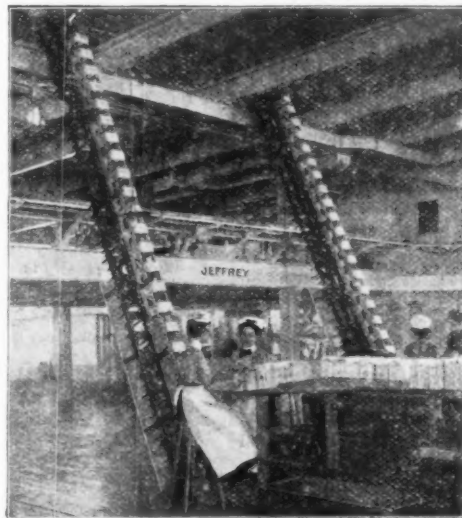


FIG. 1.

ural Food Co., Niagara Falls, N. Y., maker of the famous "shredded wheat biscuit."

Fig. 1 shows a pair of cartoon elevators

In view of the interest in the so-called "Jefferson Bible," which Congress proposes to republish as a public document, the N. D. Thompson Publishing Co. of St.

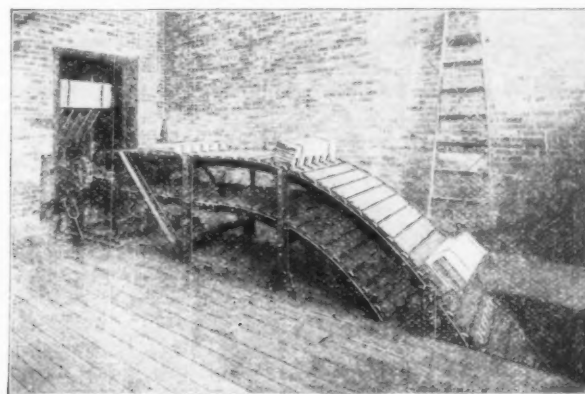


FIG. 2.

in the packing-room. The shredded biscuits are packed in cartoons and then placed on the elevators, which carry and deliver them automatically to the packing departments on the upper floor.

Fig. 2 shows a double-strand roller-chain apron conveyor for the handling of the box shoos, this conveyor working in connection with a vertical elevator. In this illustration the apron conveyor is shown just as it emerges through the floor after having passed through the wall of the building from the outside. The box shoos are placed on the receiving end of the conveyor outside of the building, and delivered automatically to the vertical elevator mentioned above. This latter picks up the box shoos automatically as they are delivered by the apron conveyor and elevates them some seventy-five feet and discharges them automatically to the packing floor.

Fig. 3 shows an automatic finger-tray elevator for lowering the filled boxes from the packing floor to the shipping-room below.

The boxes are placed on special fingers, from which they are taken automatically by the finger trays of the elevator and lowered to the shipping-room, where they are discharged automatically on special unloading fingers.

The machinery described can be adapted

Louis has published the volume in attractive and convenient form. A preface explains why Thomas Jefferson prepared the volume, embodying facts about the life

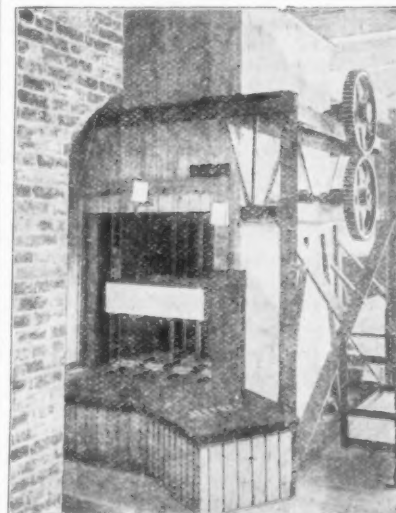


FIG. 3.

and teachings of Jesus drawn from the writings of the four evangelists. As an introduction is given a summary of the religious view of Thomas Jefferson.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., June 25.

In a local way there has been very little doing in phosphate rock, and manufacturers of fertilizers are not purchasing freely. Prices, however, are generally very steady, both for domestic and foreign rock. The following charters were reported last week: Schooner M. D. Cressey, 1884 tons, from Port Tampa to Baltimore with phosphate at or about \$2; ship King George, 2057 tons, from west coast South America to Hampton Roads for orders with nitrate at 17/6, prompt; British steamer James Turpie, 1080 tons, from Fernandina to the United Kingdom or Continent with phosphate on private terms, and the Italian steamer Mongibello, 2709 tons, from Pensacola to Genoa with part cargo of phosphate on private terms. From the several sections in the Southern phosphate belt the development is somewhat checked by the scarcity of labor. In Florida miners are generally firm in their views as to prices, and very few sales for 1903 are reported during the present month. In both pebble and hard rock the movement under new contracts is light, and prominent companies prefer to await developments before selling. Several shipments to foreign ports have left South Carolina during the month, and those engaged in the industry are working in a satisfactory way. The Tennessee market is quiet, with no unusual feature, and as miners find a difficulty in getting labor, the movement continues light. Prices continue to rule steady for all grades of both domestic and foreign rock.

Fertilizer Ingredients.

The market for ammoniacs is fairly active and steady, with a good inquiry from Eastern buyers and some demand from Southern sources. Stocks are said to be ample for all present wants. Fish scrap is steady, with the catch so far not of great volume.

The following table represents the prices current at this date:

Sulphate of ammonia (gas).....	\$3 07 1/2	3 10
Nitrate of soda, spot Balto.....	15 9/16	2 30
Blood.....	22 1/2	2 35
Azotine (bone).....	40 9/16	2 45
Azotine (pork).....	40 9/16	2 45
Tankage (concentrated).....	13 15	6 17 1/2
Tankage (9 and 20).....	2 35 & 10 1/2	2 37 1/2 & 10
Tankage (7 and 30).....	21 00	6 22 00
Fish (dry).....	27 50	6 20 00

Phosphate and Fertilizer Notes.

The Camden Drug Co. of Camden, S. C., has been incorporated, with a capital stock of \$2000. The incorporators are W. A. Dunn, A. W. Burnett and R. T. Goodale, all of Camden.

The steamship Marianne cleared last week from Savannah for Barcelona and Trieste with 2817 tons of high-grade Florida phosphate rock for the former and 1291 tons for the latter port.

The Tennessee Valley Fertilizer Co. of Florence, Ala., has had a most successful season, its output and sales being of unusual volume. The company expects to put in a rock plant next season to crush its own phosphate rock from its mines at Springer, Tenn.

It is stated that the Virginia-Carolina Chemical Co. has closed a deal with Hon. E. H. Dial of Meridian, Miss., for the purchase of 320 acres of land just outside the western limits of that city. The Virginia-Carolina Chemical Co. will at once begin the construction of a fertilizer factory on the site purchased with a 40,000-ton capacity, and a \$50,000 oil mill.

Representatives of the Virginia-Carolina Chemical Co. were in Americus, Ga., last week making arrangements for an

early commencement on the erection of a fertilizer plant. The company has purchased 150 acres as a site for the plant just outside the city limits. Architects are at work on the plans, and as soon as submitted contracts will be let for lumber, brick and other material. The plant, when completed, will be one of the finest and most complete in Georgia.

A Concrete Town.

Mr. Joseph J. Alston of Tuscaloosa, Ala., writes to the Manufacturers' Record concerning his efforts to create a small manufacturing town at the head of navigation on the Warrior river. He says:

"I own 1320x1320 feet, with fine water-power, underlaid with coal and a hill of fine stone on the creek bank. I propose to crush this stone and make avenues with it. I will donate alternate lots 25x120 feet for 100 small industries, the floors of all the factories to be laid with concrete and walls twelve inches thick and twelve high to be of concrete. The roofs are to be of tin, slate or sheet iron. The avenues are to be 100 feet wide, and the alleys twenty feet. Thus we can secure an indestructible town. We want 100 young men skilled in their various lines to bring their own machinery and hitch onto our power, which we will furnish cheap. We will light and heat all the factories and furnish pure water."

The study of the career of Hugh Swinton Legare by Dr. B. J. Ramage of the University of the South has been republished in pamphlet form from the Sewanee Review.

It is reported that the National Boat Oar Co. of Chattanooga, Tenn., has sold out to a party of New York capitalists. The plant will remain at its present location, but will be enlarged and its output increased. A charter for the new corporation will be applied for, the name being changed to the Chattanooga Boat Oar Co.

The latest quarterly number of the proceedings of the Engineering Association of the South, published at Nashville, Tenn., contains, in addition to the minutes of the March, April and May meetings, papers by H. D. Ruhm on "The Present and the Future of the Mt. Pleasant Phosphate Field;" by A. V. Gude, on "A Journey in Foreign Lands;" by C. B. Wilson, on "A Concrete Culvert on the Western & Atlantic Railroad near Bartow, Ga.," and by Alfred Huhn, on "Engineering Education."

TRADE NOTES.

Ball Engine.—The Cobasset Electric Co., Cobasset, Mass., is about to install a compound engine built for it by the Ball Engine Co., Erie, Pa.

Large Belt.—An order for a 54-inch four-ply leather belt has just been placed with J. E. Rhoads & Sons, Wilmington, Del., by the United Railway & Trading Co. of Louisiana.

Twice President.—Samuel M. Nicholson, president and general manager of the Nicholson File Co., Providence, R. I., has just been elected to the presidency of the American Screw Co.

Ice Machines.—Walter A. Zelnicker, St. Louis, has been appointed sole Western agent for the Slinger Automatic Ice Machine Co. He is in position to equip plants of any size or description.

Hicks Company Orders.—The Hicks Locomotive and Car Works, 225 Dearborn street, Chicago, has just received orders for rebuilding twenty flat cars, one combination and four passenger coaches.

Equipment from Apex Company.—The El Paso & Southwestern Railroad has just placed orders for two 18x25 50-ton freight engines and ten 60,000-pound capacity freight cars with the Apex Equipment Co., 11 Broadway, New York.

Dixon Company Paint.—The structural-steel work on the new Hotel Astor in New York is to be protected with red and green "Dixon Silica-Graphite" paint. The Joseph Dixon Crucible Co., Jersey City, N. J., is the sole manufacturer of this paint.

Equipment from Hicks Company.—Orders for rebuilding a coach, an observation car, a logging engine, a steam motor car, thirty-five hopper-bottom gondolas and six flats have been received by the Hicks Locomotive and Car Works, 225 Dearborn street, Chicago.

Galveston's Seawall.—Galveston is going to build a seawall 17,533 feet long. This wall is to be of concrete, on pilings, with rip-rap protection. G. W. Boschke, engineer in charge, Galveston, Texas, is advertising for sealed bids in triplicate on this contract. These will be opened August 11, 1902.

Business Opportunity.—One-fifth interest in a tile roofing company is offered at this time for \$45,000. This company is said to be earning 20 per cent., and a good position with a good salary is open to a desirable purchaser. For detailed information address "Established," care Manufacturers' Record.

Cold Car Heating Co.—The Cold Car Heating & Lighting Co., New York, has just been incorporated, with a capital stock of \$100,000. Mr. E. F. Cold of New York has been elected president. This company has conducted a very large business to all parts of the world, and recently has been considerably increasing it.

Vilter Company's Business.—The Vilter Manufacturing Co., Milwaukee, Wis., maker of refrigerating machinery, "Corliss" engines and brewers' machinery, reports a constantly increasing business. A list of nearly fifty orders is before us for machinery, varying in size and use, shipped to almost every part of the United States.

Louisiana Land Sale.—Seventeen thousand five hundred acres of Louisiana woodland, situated in the midst of a thickly-settled cotton region, is being offered at \$3.50 an acre in Avoyelles parish. Cultivated land adjoining is worth from \$50 to \$75 an acre. For detailed information address Thomas H. Hewes, Oscar P. O., La.

De Loach Company.—Although fire recently destroyed almost the entire plant of the De Loach Mill Manufacturing Co., Atlanta, Ga., this firm is acquainting its patrons with the fact that although badly crippled, orders are still being received and executed with promptness. A plant modern in every respect will replace the old.

Sale of Manufacturing Plant.—Address Margolis & Co., Box 413, Norfolk, Va., for information concerning the sale of a manufacturing establishment in Charlotte, N. C. This property is a factory building 150x50 and tenements on a lot 202x165, fronting on the Southern Railroad. The terms of sale will be easy and the price low.

Machinery Sales.—The Pittsburgh Gage & Supply Co., Pittsburgh, recently sold to the Susquehanna Iron & Steel Co., Lancaster, Pa., one pair of 600-horse-power Corliss engines, and two complete "White Star" filtering systems, one to the Westmoreland Light & Power Co., Greensburg, Pa., and the other to the Cincinnati, Georgetown & Portsmouth Railroad.

Sterling Company Orders.—A very large order for "Sterling" exhausters, furnace feeders, dust collectors, steel piping, shavings hoods, etc., has just been received by the Sterling Blower & Pipe Manufacturing Co., Hartford, Conn., from the Florence Pump & Lumber Co., Florence, Ala. This order was taken in the face of the keenest competition.

Sale of Land.—One hundred and fifty thousand acres of North Carolina timber land, containing cypress, pine, juniper and gum in great abundance, will be auctioned July 29 at Manteo, Dare county, North Carolina. This property, involved in a heavy lawsuit, to satisfy which it is being sold, is offered for sale in five lots or as a whole by A. B. Andrews, Jr., attorney, 203 Fayetteville street, Raleigh, N. C.

Augusta, Ga.—The Chamber of Commerce of Augusta, Ga., is calling attention at this time to the exceptional advantages offered by that location to homeseekers and manufacturing industries. Low tax rates, one of the greatest canals in the South, cheap power, very healthy location and perfect sewerage are some of the advantages of Augusta. Planters frequently gather 100 bush-

els of corn to the acre on the farms surrounding this town.

Locomotive Storage Batteries.—The use of storage batteries on locomotives for certain uses appears to present some advantages. For switching in yards or in large plants, cheapness—only one of the advantages claimed for it—is no small consideration. C. W. Hunt Co., West New Brighton, Staten Island, New York, makes storage battery electric locomotives and installs plants for utilization of the same.

Orders for Besly & Co.—Within the past month shipments of "Gardner" grinders sold by Charles H. Besly & Co., 10 and 12 North Canal street, Chicago, have been made to all parts of this country, including California, New York, Rhode Island, Connecticut and New Jersey. This firm also reports a brisk business in other lines, many large shipments of "Helmet" oil and other supplies having been recently made.

Reorganization.—The Beech Domestic Burner & Fuel Oil Co. of Beaumont, Texas, and Cincinnati, Ohio, has been reorganized and the capital stock increased to \$100,000. A factory for the manufacture of fuel-oil burners for domestic use is being erected at Cincinnati; this plant will be in operation, it is thought, by August 1. The officers of the company are L. P. Beech, president; W. W. Clippinger, vice-president; B. T. Clemons, secretary, and J. M. Beech, treasurer.

Steel Plant's Enlargement.—Scullin-Gallagher Iron & Steel Co., St. Louis, is raising the capacity of its present plant to 125 tons of finished castings per day. This house, only eighteen months old, has had phenomenal success, indicated by this extensive addition so soon after beginning operations. President Scullin reports business too great for the firm's present capacity. All kinds of miscellaneous steel castings are produced from this plant. A large part of the business is railroad work.

Atkins & Co. Notes.—The following officers and directors were elected for the ensuing year at a recent meeting of the stockholders of E. C. Atkins & Co., Indianapolis: President and superintendent, H. C. Atkins; vice-president and secretary, N. A. Gladding; treasurer, M. A. Potter; assistant treasurer, A. D. Gates; cashier, F. C. Gardner; directors, H. C. Atkins, M. A. Potter, N. A. Gladding, A. D. Gates, T. R. Kackley. This firm has a very extensive plant for the manufacture of saws and tools.

Westinghouse Notes.—A very interesting temporary installation to be replaced by a larger plant shortly is the one being installed for the Hudson Valley Railroad Co. by the Westinghouse Electric & Manufacturing Co., Pittsburg. The "Tom Boy" gold mines, Pandora, Col.; the Ritter-Conley Manufacturing Co., Pittsburg, and the Steubenville & Wheeling Traction Co. have recently placed large orders with the Westinghouse Company for machinery of various sizes and types. Mr. James R. Ribbins, assistant electrical engineer of the Detroit United Railroad, has resigned this position to accept one with the publishing department of the Westinghouse Company, New York and Pittsburg.

"Carbo-Mangan."—In the course of excavating for the New York subway the DeLeon-McLean Company, contractor for a section of that tunnel, struck rock of such hardness that something had to be done about the rock drills, which were away unusually fast. A new compound called "Carbo-Mangan" was resorted to, and proved very effective. It is used similarly to oil in hardening. It is said not to temper the steel, but brings the molecules into closer affinity, thus making even inferior grades of tool steel exceedingly tough and of fine grain. The chisel, drill or tap is brought to a cherry heat and immersed in a bath of "Carbo-Mangan," then cleaned, reheated and tempered as usual. The effect of this treatment is said to be easily observed, especially in tools of large diameter, on which the callipers will show a small shrinkage. This tends to show the action of "Carbo-Mangan," effecting the steel not alone on the surface, but throughout. Dies treated with "Carbo-Mangan" are said to have shown an average gain in durability of about 25 per cent. over dies not so treated. The cost of treating steel with this compound is about one-half mill per pound of metal; the bath is good until used; does not deteriorate with use, and the evaporation is but slight. Thirty pounds of "Carbo-Mangan" will last a large shop several months. The compound is put up in 10-gallon tins for trial. The John Simmons Company, 110 Centre street, New York, is the sole manufacturer of this new compound.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Ashland—Water-works.—Construction of water-works system is contemplated. J. W. Jackson can be addressed.*

Birmingham—Water-works.—Robert R. Zell and associates, who lately obtained water franchise, have incorporated Birmingham & Suburban Water Co., with capital of \$2,000,000, to construct the plant. Other incorporators are Lewis P. Pitcher of Chicago, Chas. W. Furey of Chicago, B. M. Allen and Eugene F. Enslin of Birmingham.

Birmingham—Car Works.—American Car & Foundry Co. (executive department, Lincoln Trust Building, St. Louis, Mo.), referring to the report mentioned last week as to its building a plant in the Birmingham district, writes: "There is nothing in this matter."

Birmingham—Coke Ovens.—De Bardeleben Coal & Iron Co. is preparing to construct 200 coke ovens at its 6000-acre tract of coal and iron land.

Etowah County—Iron-ore Lands.—A. J. Signaigo of Chattanooga, Tenn., has purchased 165 acres of iron-ore land for \$45,000.

Fayetteville—Lumber Company.—Empire Shingle & Lumber Co. has been incorporated.

Huntsville—Oil Wells.—New York-Alabama Oil Co. is taking options on land, and will drill for oil. Address, care of S. L. Whitten.

Mobile—Dry-kiln.—Dixie Mill Co. has let contract for construction of dry-kiln to replace one recently burned. Cook & Laurie, Montgomery, Ala., have contract to erect the house, 20x120 feet.

Pratt City.—Robert R. Zell of Birmingham and associates have purchased the city water-works, and will enlarge and improve the plant.

Pratt City—Electric-light Plant, etc.—City will probably expend \$50,000 for establishment of electric-light plant, improvement of streets, etc. Address "The Mayor."

Talladega—Cotton Gin.—Talladega Gin Co. has been incorporated.

Talladega—Water-power Development, etc. The Talladega Company, reported at length last week in connection with certain electric-lighting and power franchises, etc., has for its president Geo. W. Chambers. For additional information address Messrs. Macfar-

ren & Machesney, 409 Market street, Pittsburgh, Pa.

Utah—Cotton Ginnery.—E. H. Anderson will build cotton ginnery.

ARKANSAS.

Danville—Saw-mill.—Kealty & Blackburn are erecting saw and planing mill.

Eureka Springs—Stock Company.—Ozark Angora Stock Co. has been incorporated, with capital of \$10,000; H. H. Beardsley, president, and A. K. Krebs, secretary; will breed goats.

Fordyce—Stave Mill.—Hampton Stave Co. has increased capital from \$50,000 to \$125,000.

Gurdon—Electric-light, Ice and Water Plants.—J. W. Wilson of Arkadelphia, Ark., contemplates constructing water-works, electric-light plant and ice factory. He will apply to city for franchise.

Hamburg—Oil Wells.—Arkansas & Louisiana Petroleum Oil Co. has been incorporated, with capital stock of \$100,000, and J. J. Dean, president; Turner Butler, secretary, and Jas. C. Gorman, general manager, to drill for oil.

Helena—Hoop Company.—Helena Hoop Co. has been incorporated, with capital of \$12,000; Geo. F. Updegraff, president; B. F. Hobart, vice-president, and Geo. F. Lyford, secretary.

Little Rock—Asphalt Paving.—City contemplates expending \$10,000 for asphalt paving. Address "The Mayor."

Little Rock—Cotton-oil Mill.—Rose City Cotton Oil Co. has been organized with T. A. Bunch, president; Justine Matthews, vice-president; G. N. Peay, secretary-treasurer, and L. H. Conley, manager. Contracts for machinery and buildings have been placed. Capital stock is \$50,000.

Little Rock—Plumbing Company.—J. E. Keyes Company has been incorporated, with capital of \$6,000, by J. E. Keyes, John Gowdy and W. C. McDowell.

Little Rock—Lumber Company.—Johnson Lumber Co. has been incorporated, with capital of \$50,000, by Wm. J. Farrar (president), Wm. H. Johnson, John Durnont and Geo. W. Freeland.

Little Rock—Cotton Mill.—A \$100,000 company to build cotton-cloth mill is proposed, and subscriptions are being secured. George R. Brown can give information.

Mableville—Soda Factory.—E. Metzner has built a factory for sal-soda and baking soda.

Paris—Cotton-oil Company.—Logan County Cotton Oil Co. has been incorporated, with capital of \$50,000, by W. J. Jones (president), Geo. M. Zeller, W. R. Cheney, H. M. Nichols and Anthony Hull.

Pine Bluff—Cotton Compress.—St. Louis Cotton Compress Co. has purchased Pine Bluff Compress at \$70,000. This company will increase its capital to \$1,500,000 and purchase a number of compresses in the South. W. K. Kavanaugh, St. Louis, Mo., is president.

Prairie Grove—Flour Mill and Elevator.—L. C. McCormick Mill & Elevator Co., reported with \$15,000 capital last week, has let contract for complete mill of eighty barrels daily capacity.

Silica—Lumber Company.—Lena Lumber Co. has been incorporated, with capital of \$15,000, by G. S. R. Falst (president), J. Finkham, C. D. Lewis, John Fahlomer and others.

Springdale—Water-works.—Town contemplates constructing water-works. J. P. Deaver can be addressed.

FLORIDA.

Eau Gallie—Lumber Company.—East Coast Lumber & Supply Co. has been incorporated, with capital of \$25,000, to deal in and manufacture lumber, etc. J. B. Conrad is president; Frank E. Bond, treasurer, and George F. Pattison, manager.

Jacksonville—Electric-light Plant.—The city will enlarge and improve its electric-light plant. Address "The Mayor."

Jacksonville—Real Estate.—B. F. Dulon, Gus Muller and A. G. Hatridge have incorporated North Springfield Co., with capital of \$40,000.

Palmetto—Publishing.—T. W. Conrad, N. W. Roberts and A. T. Cornwell have incorporated Palmetto Publishing Co., with capital of \$1250.

Pensacola—Lumber Plant.—Southern States Lumber Co. has let contract for new equipment of machinery for its planing mills

and dry-kilns. About \$30,000 will be expended.

Port Tampa City—Box Factory.—Wood & Thompson have completed building of brick, 105x172 feet, and installed machinery for daily capacity of 10,000 wooden boxes. About \$15,000 is invested.

Tallahassee—Electric-light Plant.—City has been authorized to issue bonds for installation of electric-light plant, and bids will be received. An electrician will be wanted. Address "The Mayor."

Tallahassee—Electric-light Plant.—City has in contemplation construction of an electric-light plant. Address "The Mayor."

GEORGIA.

Americus—Cotton Ginnery.—Americus Oil Co. is overhauling and improving its cotton-oil mill and adding new machinery; also will erect eight cotton gins, each of 70-saw capacity, producing about eighty bales per day; will cost about \$12,000.

Atlanta—Grain Elevator.—Choctaw Elevator Co. has been incorporated, with capital of \$50,000, by Geo. W. Brooke, T. J. Brooke and Alexander W. Smith.

Atlanta—Adding-machine Works.—American Adding Machine Co. has been incorporated to manufacture office specialties, by E. C. Peters, C. R. Winslow, F. P. Dancy and others, with capital of \$10,000.

Canton—Cotton Mill.—Canton Cotton Mills will install fifty (not 100, as stated last week) additional looms, besides the dye plant. Contract has been let to O. A. Robbins of Charlotte, N. C.

Cartersville—Cotton-oil Mill.—Southern Cotton Oil Co. (general office at Montgomery, Ala.) will build 20-ton cotton-oil mill. Main building will be of brick, 52x100 feet, seed-house 30x100 feet, hullhouse 32x100 feet, etc., all under contract; construction work now in progress; to cost \$25,000. J. E. Field is local manager.

Clem—Ginnery and Oil Mill.—J. J. Holloway is organizing a \$20,000 company to build cotton ginnery and cottonseed-oil mill of ten, fifteen or twenty tons capacity. No contracts have been placed.*

Dalton—Electric-light Plant.—City has had plans prepared for electric-light plant, and is inviting estimates on construction and equipment. Plans are on view at mayor's office. A. St. C. Dunstan, Auburn, Ala., is engineer.*

Dublin—Veneer Mill.—J. M. Simmons, Jr., has established veneer mill, and will operate as the Simmons Manufacturing Co.

Griffin—Oil Mill.—Dixie Creamery, noted last week as erecting additional building, will not add creamery machinery, but will install equipment for manufacturing cottonseed oil. James Johnson has the contract. Walker Bros., proprietors, should be addressed.*

Griffin—Light and Water Plant, etc.—City will call an election to vote on the issuance of \$80,000 bonds for constructing sewerage and improving the water and light plants. Address "The Mayor."

La Grange—Sewerage System.—City has voted \$40,000 in bonds for construction of sewerage system. Address "The Mayor."

Louisville—Oil Mill.—Louisville Manufacturing Co. will double capacity of its cotton-oil mill and install electric plant.

Macon—Electric-light and Power Plants, etc.—John L. Williams & Sons of Richmond, Va., and J. W. Middendorf & Co. of Baltimore, Md., are reported as endeavoring to purchase, for the purpose of consolidation, the electric railways, lighting and power plants in Macon. If the proposition is accepted, extensive improvements will probably be made.

McRae—Electric-light and Water Works.—City has voted an issuance of bonds for construction of water-works and erection of electric light plant. Address "The Mayor."

Poulan—Cotton Mill.—Proposed company of J. G. McPhaul, mentioned last week, has organized as Poulan Cotton Mills, and will equip plant; has buildings and power complete. Further details later.

Rome—Fruit Cultivation.—Frank Freeman, John Graham and others will organize company to plant and cultivate 10,000 peach trees.

Rome—Fruit Cultivation.—Sproull Fouche, H. G. Cothran and G. S. Cothran have incorporated Mt. Alto Peach Co. for fruit cultivation, etc., with capital stock of \$20,000.

Valdosta—Cigar Factory.—S. R. Dickenson and others have incorporated Southern Cigar Co., with capital of \$10,000, to operate factory.

Valdosta—Hardware Company.—W. H. Briggs, J. F. Lewis, J. C. McDonald and others have incorporated W. H. Briggs Hardware Co., with capital of \$15,000, to deal in hardware.

Waycross—Car Works.—A movement is on foot for organization of company, with capital of \$60,000, to establish box and flat car works. Probably J. A. Gillon Machine Co. can give information.

KENTUCKY.

Brandenburg—Glass Works.—A dispatch states that Calor Oil & Gas Co. contemplates establishing glass works.

Burkesville—Oil Wells.—Royal Oil Co. has been incorporated, with capital stock of \$100,000, to drill for oil, by C. W. Alexander and W. F. Alexander of Burkesville, Jos. Pryor, G. R. Hume, Jr., and Laban Phelps of Louisville and others.

Burkesville—Telephone Line.—Gainsboro Telephone Co. is extending its long-distance lines.

Greenville—Coal Mines.—James Graham of Detroit, Mich., and others have purchased 2700 acres of coal lands and mining equipment of the Mud River Coal Co. at \$47,000. Property will be developed, new machinery installed and output largely increased.

Louisville—Paint and Varnish Company.—Herman Blatz, Chas. A. Blatz and Henry C. Kraft have incorporated Val-Blatz Paint & Varnish Co., with capital of \$10,000.

Louisville—Flour Mill.—John T. Rabbeth, R. C. Watkins and Frank Yost have incorporated John T. Rabbeth Mill Co. for the manufacture of flour and meal. Capital stock is \$100,000.

Louisville—Petroleum Developments.—Osborne Petroleum Co., reported incorporated last week with \$150,000 capital, has elected W. S. P. Oscamp, president; W. H. Osborne, vice-president; H. L. Means, secretary, and M. H. Hulings, general manager; offices at 620 Equitable Building.*

Madisonville—Coal Mines.—Jas. Graham of Detroit, Mich., has purchased at \$47,000, 2700 acres of land, together with mining plant, coal tipples, etc., and will develop same.

Morgantown—Water-works.—City has voted \$8000 in bonds for the construction of water-works plant. Address "The Mayor."

Olive Hill—Gas and Oil Wells.—W. J. Rice and experienced oil drillers of Butler county, Pennsylvania, have organized Olive Hill Oil & Gas Co. to drill for gas and oil.

Owensboro—Agricultural Developments.—Jas. H. Parrish, J. E. Gunther, A. Steiteley and others have incorporated Daviess County Farm & Land Co. for agricultural purposes, with capital of \$12,000.

Ragland—Oil Pumping Station.—Licking Valley Oil & Gas Co. will construct oil plant with capacity of 37,500 barrels and install power plant and pumping station.

Versailles—Oil Works.—Edward Gunster (representing Pennsylvania capitalists) has asked for franchise to construct water-works.

Whitehouse (P. O. at Myrtle)—Coal Mines and Coke Ovens.—A dispatch from Sharon, Pa., states that the Southern Coal & Coke Co. has purchased 30,000 acres of coal lands for about \$3,000,000, and will institute extensive developments. The plans are reported to include opening mines, erecting extensive mining plants, building numerous coke ovens, constructing a 150-mile steam railway, etc.; about 100,000 acres contains coking coal, the balance fuel coal. Frank H. Buhl and P. L. Kimberly of Sharon, Pa.; John C. Mayo of Whitehouse, Ky.; David Adams of Duluth, Minn.; R. Dreyfus and George Howe of Chicago are said to be interested. In response to a telegram, Mr. Kimberly says: "No truth in the report."

LOUISIANA.

Abbeville—Cotton Gin.—Valery Leblanc will rebuild his cotton gin.

Abbeville—Woodworking Plant.—Chas. F. Steen contemplates installing woodworking outfit in his saw-mill.

Acadia—Fertilizer Factory and Oil Mill.—Company mentioned last week has organized as Acadia Cotton Oil Mill & Manufacturing Co., with F. T. Taylor, president; L. F. Wakeman, vice-president; S. W. Smith, treasurer, and capital of \$50,000. A two-press oil

mill of thirty tons capacity day and night will be installed; also fertilizer factory. Address L. F. Wakeman, vice-president.*

Houma—Water-works.—City has \$27,000 available for expenditure on the proposed water-works reported last week. Bids will be asked at once. Geo. C. Morgan, Royal Insurance Building, Chicago, prepared plans and specifications, and has same on view.*

Long Bridge—Cotton-oil Mill.—Long Bridge Cottonseed Oil Co. has been organized, with capital of \$60,000, to build cottonseed-oil mill; Oscar Bordelon, president; J. B. Perkins and T. A. Lemoine, vice-presidents; L. L. Bordelon, secretary, and W. F. Joffrion, treasurer.

New Orleans—Mercantile.—Frank E. Leas Co. has been incorporated, with capital of \$20,000; Frank E. Leas, president; Edward Freind, vice-president, and Manuel Miango-lorri, secretary.

New Orleans—Oil Refinery.—Record Oil Co. has let contract for erection of buildings for its proposed oil refinery; site has been purchased; about \$250,000 will be the cost of plant.

New Orleans—Land Improvement.—International Land & Improvement Co. has been incorporated, with capital stock of \$50,000, to improve lands, cultivate rice and sugar cane, erect rice and sugar mills, etc. Maurice Stern is president; J. W. Libbey, vice-president; Geo. A. Hero, secretary; Ira Wight, treasurer.

Perrys Bridge—Sugar Refinery.—O. M. Nil-son and others will endeavor to complete the plant of the People's Sugar Co. and install a modern sugar equipment.

Thibodaux—Electric-light and Power Plant. New Orleans & Southwestern Railroad Co. was mentioned June 5 as having let contract for its plant complete. It is now known that the electric plant will have a capacity for generating 10,800 horse-power, and that it will cost about \$300,000. A bridge will be constructed across Bayou Lafourche, its draw to be operated by electricity. C. B. Young is general manager.

MARYLAND.

Baltimore—Machine Works.—Murrill & Keizer Co. has been incorporated to continue the business of Murrill & Keizer, general machinists. Incorporators are Louis M. Keizer, Jas. L. Murrill, John C. Murrill, Chas. H. Miles and Wm. E. Hoffman; capital, \$50,000; offices, Lexington and Holliday streets.

Baltimore—Hides.—Chas. E. Pontier, Jos. Martin, C. C. Morgan and others have incorporated Dumont & Co., with capital of \$10,000, to deal in hides and fur.

Baltimore—Steam Laundry.—Yale Laundry, Taylor & Walker, proprietors, 106 West Fayette street, proposes constructing new plant to replace that recently burned; contemplates 48x82-foot building, with boilers, engines and laundry machinery. Plans not prepared nor definite time fixed for beginning work.*

Cumberland—Paper Mill.—Maryland Paper Co. has purchased the Cumberland Paper Mills for about \$100,000, which it has been operating under lease, and has commenced to rebuild the sulphite mill lately destroyed by fire.

Easton—Gas and Electric Plant.—Easton Light & Fuel Co. has been organized, with Clarence P. King of Philadelphia as president; John W. Pittcock of Philadelphia, treasurer, and Fred. K. Owen of Denton, Md., secretary. The company purchases existing gas and electric-light plants for \$50,000, and will expend about \$50,000 for improvements.

Kensington—Street Improvements.—City will issue \$5000 bonds for street and sidewalk improvements. Address "The Mayor."

Phoenix—Coal Mines.—W. B. Althouse, 424 Stephen Girard Building, Philadelphia, Pa., has purchased 232 acres of coal land, and intends to develop same.

MISSISSIPPI.

Bate's Mill—Fertilizer and Oil Plant.—A. J. Lazar, T. J. Webb, J. D. Lea, O. D. Newman, W. S. Webb, C. J. Thomas and others are organizing company to build cottonseed-oil mill and fertilizer factory.

Chunkey Station—Lumber Plant.—Jas. Meehan of Milwaukee, Wis., and associates have purchased site near Chunkey Station upon which to establish a \$250,000 lumber plant. These parties own extensive timber interests in this section.

Crystal Springs—Brick Works and Planing Mill.—R. J. Young contemplates equipping brick works and erecting planing mill.

Hattiesburg—Oil Mill.—S. C. Tucker can be addressed regarding the company reported last week to build 40-ton cottonseed-oil mill. Machinery has been purchased.

Holly Springs—Cotton Compress.—Holly

Springs Cotton Compress Co. will enlarge and improve the facilities of its compress.

Magnolia—Cotton-oil Mill.—Magnolia Oil Mill & Manufacturing Co. has been incorporated to build the oil mill lately reported. Capital stock is \$50,000. Incorporators are Sam Abraham, T. B. Lampton, A. W. Stevens, A. D. Felder, J. H. Price and W. G. Day.

Meridian—Oil Mill and Fertilizer Factory.—Virginia-Carolina Chemical Co. (general offices at Richmond, Va.) has purchased 320 acres of land as site for the construction of fertilizer factory of 40,000 tons capacity and a cottonseed-oil mill to cost \$50,000.

Sandersville—Lumber Plant.—Sandersville Manufacturing Co. has been organized, with A. S. Bailey, manager, and will erect plant for manufacturing lumber, cotton-mill shuttles, handles, etc.*

Sardis—Brick Works.—Sardis Brick & Tile Co., reported last week with \$10,000 capital, has contracted for brick works of 20,000 capacity daily. E. T. Jackson is architect in charge, and T. W. Trutter is the engineer.

MISSOURI.

Farmington—Oil Works.—Laufketter-Bendict M. E. Co., Burlington Building, St. Louis, Mo., has contract to prepare plans and specifications and supervise installation of \$25,000 water-works for city.

Granby—Mining.—Thomas Sprague, A. F. Law, W. F. Meers and others have incorporated Meers Mining Co., with capital stock of \$250,000.

Kansas City—Cattle.—Cherry Valley Cattle Co. has been incorporated, with capital of \$20,000, by Chas. H. Hill, Hugh T. Woods and others.

Kansas City—Brick Works.—Robert Nesch, J. H. Richards, David D. Hoag and others have incorporated Pittsburg Vitri-fied Building & Paving Co., with capital stock of \$500,000.

Springfield—Laundry.—Frank B. Smith Laundry Co., reported with \$3000 capital last week, has let contract to Davis Planing Mill Co. for erection of building. All machinery needed has been purchased.

St. Louis—Mining.—Bald Mountain Mining Co. has been incorporated, with capital of \$25,000, by Jacob Friedman (president), Frank P. Greenhow and Wm. A. Friedman.

St. Louis—Lumber and Mining.—Chas. B. Todd, Jonathan W. George, Willard P. Heath and others have incorporated Taney County Lumber & Mining Co., with capital of \$75,000.

NORTH CAROLINA.

Albemarle—Telephone Company.—Albemarle Telephone Co. will increase capital by \$10,000.

Burlington—Cotton Mills.—It is rumored that J. Q. Gantt & Sons will erect a cotton mill.

Greensboro—Cotton Mill.—Proximity Manufacturing Co. will own and operate the 60,000-spindle and 2000-loom denim mill (a \$1,250,000 enterprise), announced last week as to be built by Moses H. Cone and associates of the company. Main building will be three stories high, 150x750 feet, with engine and boiler rooms, dyehouse, warehouses, offices, 600 operatives' cottages, churches and schools. This plant will be known as White Oak Cotton Mills. This new mill village and the village at the present mill will be connected by a broad avenue, graded and macadamized; both communities will be provided with water supply, sewerage system, electric lighting, etc. D. K. Cecil of Lexington, N. C., has contract for manufacturing 6,000,000 of the bricks that will be required for building. Proximity Company will also increase its present mill at once from 1000 to 1200 looms.

Hickory—Furniture Company.—Thomas J. Martin, J. M. Chiles, W. W. Griffin and C. E. Wildman have incorporated Martin Furniture Co., with capital stock of \$50,000.

Monbo—Cotton Mill.—Monbo Manufacturing Co. has increased capital from \$50,000 to \$60,000 and ordered 416 additional spindles, etc.; it now has 2832 spindles.

Pine Level—Oil Mill.—Pine Level Oil Mill Co. has been organized, with Jesse Parker, president, and capital of \$25,000, to build 40-ton cottonseed-oil mill. Building is being erected, and contract has been placed for machinery. J. H. Worley is architect in charge.

Saxapahaw—Cotton Mill.—White, Williamson & Co. will construct another dam and enlarge their mill, which now has 5000 spindles and 100 looms.

Selma—Furniture Company.—N. E. Edgerton, R. B. Whitley, W. W. Hare and others have incorporated Selma Furniture Co., with capital of \$12,500.

Swepsonville—Cotton Mill.—It is reported

that Virginia Cotton Mills will double its plant; now has 15,000 spindles and 300 looms.

Teachey's—Brick and Tile Works.—John C. McMillan, Alfred D. Rogers, Geo. L. Lewis and others have incorporated Teachey's Brick & Tile Co., with capital of \$10,000, to establish brick and tile works.

Wilmington—Coal and Wood Plant.—J. A. Springer & Co. have purchased site 200 feet square on which to locate another coal and wood plant. Storage bins with a capacity of 7000 tons will be erected, together with machinery for economically handling same and discharging vessels, etc.; also machinery for sawing and splitting wood.

SOUTH CAROLINA.

Camden—Drug Company.—Camden Drug Co. has been incorporated, with capital of \$2000, by W. A. Dunn, A. W. Burnett and others.

Charleston—Water-works.—The citizens have voted approving the action of city authorities in granting franchise for the construction of new water-supply system to the Charleston Light & Water Co. The proposition for this new plant was reported last month, and it was stated that the Mercantile Trust & Deposit Co. of Baltimore, Md., had been engaged to finance the enterprise. Bonds to the amount of \$1,250,000 will be issued to acquire the present system and construct this new one. Inquiries for full particulars should be addressed to American Pipe Co., 112 North Broad street, Philadelphia, Pa. This latter company has contract to construct the plant, and its chief engineer, J. W. Ledoux, will prepare the plans. Bids for the machinery and supplies have been received, and contracts will be awarded in a few days.

Columbia—Machine Works.—C. A. Atkinson, A. N. Gibbs and C. G. Guignard have incorporated Columbia Machine and Iron Works.

Conway—Livery.—J. A. McDermott and A. G. Thompson have incorporated J. A. McDermott Co., with capital of \$10,000.

Gaffney—Cotton Mill.—Limestone Manufacturing Co. purposes to double its plant (12,500 ring spindles, 300 looms), but is not likely to undertake the work this year.

Newberry—Knitting Mill.—Newberry Knitting Mill will install dyeing plant.

Spartanburg—Cotton Mill.—A \$200,000 company will be organized to build cotton mill. Northern capital will be interested. Dr. H. A. Ligon will be president-treasurer.

Spartanburg.—It is rumored that another cotton mill is being organized, capitalized at \$200,000, and that A. A. Ligon is the promoter.

Spartanburg—Sewerage System.—City will vote in August or September on issuance of \$40,000 in bonds for its proposed sewerage system. Thomas E. Doyle is mayor.

Union—Ginnery, Ice Plant and Oil Mill.—Buffalo Cotton Mills will install 20-ton ice plant, 10-ton cottonseed-oil mill, cotton-ginning system and two hydraulic rams. L. G. Young, engineer in charge, must be addressed.*

TENNESSEE.

Bristol—Iron Furnace.—The report as to Virginia Iron, Coal & Coke Co. blowing out its furnace, as given last week, was entirely incorrect.

Brownsville—Cotton-oil Company.—John W. Campbell, Daniel Bond, R. G. Browning and others have incorporated Brownsville Cotton Oil Co., capitalized at \$50,000.

Chattanooga—Oar Factory.—Chattanooga Boat Oar Co. has been incorporated, with capital of \$5000, by Sol Moses, R. H. Williams, Wm. Thomas, W. G. Thomas and W. B. Swaney, acquired and will continue the National Boat Oar Co. factory.

Collierville—Bottling Plant.—R. D. Wilson contemplates installing a bottling plant.*

Elora—Stave Mill.—G. A. Light and associates will build stave mill.

Godwin—Phosphate Mine.—S. S. Lord of Mt. Pleasant, Tenn., will develop phosphate mines.

Knoxville—Planing Mill.—Saxton Lumber Co.'s additional mill, reported last week, will be for planing, with capacity of 100,000 feet daily.

Knoxville—Tannic-acid Plant.—Eugene Horton, A. H. Healey, S. P. Savage and W. B. Riddell of the United States Leather Co. (general offices, New York city) are seeking a site for the establishment of a plant to manufacture tannic acid.

Knoxville—Lead Mines.—C. W. Steele, A. M. Threadwell, E. F. Smith and others have incorporated Valley Mount Lead Co., capitalized at \$50,000.

Knoxville—Flour Mill.—Peters & Bradley

Mill Co. will let contract for three-story building 36x52 feet, of frame, with machinery for 100 barrels of flour daily.

Loudon—Lumber Plant.—Loudon Manufacturing Co. has been organized, with capital stock of \$100,000, secured building, and is installing machinery for the manufacture of lumber; another large building will be erected; A. L. Stiller, president and manager; C. M. Levy, vice-president; F. H. Ketcham, secretary, all of Burlington, Iowa. Address manager at Loudon.

Memphis—Cotton Mill.—New York and Boston parties have purchased Bluff City Cotton Mill, and it is said will expend \$60,000 to install new machinery and put the plant in operation. J. H. Soery, care Peabody Hotel, can probably give information.

Memphis—Railroad Shops.—St. Louis & San Francisco Railroad will overhaul and enlarge its Memphis shops, besides extensively increasing its terminal facilities. R. L. Winchell of St. Louis, Mo., is general manager.

Nashville—Trunk Factory.—White Trunk & Bag Co., formerly of Knoxville, has leased five-story building at 116 North Public Square, and will install machinery for the manufacture of trunks and bags.

Nashville—Gas and Oil Wells.—Walden Oil & Gas Co. has been incorporated to drill for oil and gas, with capital stock of \$30,000, by Horace S. Hubbard of Sturgis, Mich.; Wm. H. Seward of Knoxville, Tenn.; John J. Meyers of Pikeville, Tenn.; Willard W. Sterling of Elkhart, Ind., and others.

Niota—Knitting Mill.—Crescent Hosiery Co., incorporated with \$12,500 capital (reported under Nashville last week), has let contract to W. B. Harper of Cleveland, Tenn., for construction of plant; will use electric power.*

Springer—Phosphate Plant.—Tennessee Valley Fertilizer Co. (main office, Florence, Ala.) contemplates building a phosphate rock crushing plant.

TEXAS.

Beaumont—Oil-fuel Equipments.—Buck Domestic Burner & Fuel Co. has been incorporated by A. T. Waller of Beaumont, E. E. Weeks of San Antonio, B. T. Clemons, W. W. Crookinger, J. M. Beast of Cincinnati, Ohio, and others, to manufacture devices for use of crude and refined oil as fuel. Capital stock is \$100,000.

Beaumont—Oil Well.—T. F. Hopkins, F. H. Kimball, each of Rockport, Ill.; E. N. Rort of Beloit, Wis.; J. A. Russell of Elgin, Ill.; C. J. Easton and R. E. Steele of Beaumont have incorporated Rock River Oil & Transportation Co., with capital stock of \$300,000, to prospect for oil, transport same by pipe line, etc.

Beaumont—Sulphuric-acid Plant.—Mark T. Cox, banker, of New York city, is organizing a company to establish plant for the manufacture of spelter and sulphuric acid. About 150 tons of zinc ore will be used daily. Buildings will be constructed of structural steel for car sheds, machine shops, warehouses, machinery, etc.; earthen tankage will be constructed for 1,000,000 barrels of oil. Details are now being arranged. E. H. Mower is local representative. It is said plant will cost \$1,000,000.

Beaumont—Brewery.—George Adams is organizing a \$225,000 company to build brewery with capacity of 30,000 barrels.

Derrewell—Educational.—W. B. Toon, Matthew Cartwright, C. J. Newton and others have incorporated Terrell University School, with capital of \$30,000.

Galveston—Seawall Construction.—City is now advertising for bids on the construction of the seawall 17,593 feet long; cost will be about \$1,500,000. For further information address Geo. W. Boschke, engineer in charge.*

Keene—Pure Food.—W. S. Greer, E. E. Woodruff and B. A. Sutherland have incorporated Lone Star Pure Food Co., with capital of \$5000.

Lewisville—Cotton Ginnery.—J. E. Buster, Jas. Hayes, L. M. Kealey and others have incorporated Farmers & Merchants' Gin Co., with capital of \$8000.

Mt. Pleasant—Water-works.—The city having completed sale of its water-works bonds, is about to arrange for the construction of the system. S. P. Pounders, mayor, can be addressed.*

Paris—Grocery.—R. D. Lightfoot and others have incorporated Lightfoot Grocery Co., with \$20,000 capital.

Story—Townsite.—J. N. Cook, John Purcell, E. C. Barrows and others have incorporated Story Townsite & Improvement Co., with capital of \$28,000.

Tarrant—Creamery.—N. P. Anderson, B. L. Anderson and F. A. Blain have incorporated

Alta Vista Creamery Co., with capital of \$10,000.

Victoria—Water-works.—City has engaged Chester B. Davis of New York city to submit outline of plan for constructing water-works. Address "The Mayor."

Waxahachie—Telephone Company.—Ellis County Independent Telephone Co. has been incorporated, with capital stock of \$100,000, by A. E. Schaffer, Tony Schaffer and J. V. Earle.

VIRGINIA.

Alexandria—Glass-bottle Works.—Belle-Pre Bottle Co. will establish works. Contract for main building, to cost \$3000, has been let to Brenner & Knight.

Brockett—Lime Works.—Powhatan Lime Co. has begun erection of complete new lime plant.

Browtown—Handle Mill.—Virginia Hardwood Manufacturing Co. has begun erection of a large handle mill.

Norfolk—Paper-box Factory.—R. B. Fentress, Floyd Hughes, T. E. McFarlane and others have incorporated American Paper Box Co., with capital of \$25,000, to manufacture paper boxes.

Norfolk—Mineral-water Plant.—R. B. Fentress, Floyd Hughes and C. S. Moseley have incorporated National Mineral Water Co., with capital of \$5000, to manufacture and bottle mineral waters, etc.

Petersburg—Tobacco Factory.—Zimmer Company has been incorporated, with capital of \$40,000, for tobacco manufacturing. W. L. Zimmer is president; W. L. Zimmer, Jr., secretary-treasurer; F. W. Zimmer, John Moyle and Samuel Burwell, directors.

Petersburg—Saw-mills.—T. C. Berger of Burkeville, Va., is interested in the erection of saw-mills in Petersburg and other cities.*

Portsmouth—Steel Plant.—Harry L. Maynard, A. J. Phillips and others are said to be interested in a project for the establishment of a steel plant.

Richmond—Shipbuilding Plant.—E. T. D. Myers, Jr., C. E., is engineer in charge of the \$1,000,000 worth of improvements reported as to be made last week by Wm. R. Trigg Company, shipbuilder.

Richmond—Tobacco Factory.—Butler & Boshier Tobacco Co. has been incorporated, with capital stock of \$125,000, and absorbs Butler & Boshier, operating tobacco factory at Twenty-fourth and Franklin streets. It is said another factory will be erected. St. Clair Butler is president; Jas. T. Estes, vice-president, and Robert M. Andrews, secretary.

Richmond—Improvement Company.—Atlantic Land & Improvement Co. has amended charter, authorizing increase of capital from \$75,000 to \$2,000,000.

Riverton—Lime-kilns.—Carson Lime Co. has begun erection of six additional lime-kilns.

Roanoke—Cannery and Can Factory.—C. M. Nalls contemplates erecting cannery and can factory.

Roanoke—Furnace and Rolling Mill.—Drake, Bartow & Co. of Cleveland, Ohio, have offered \$125,000 for Roanoke Furnace Co.'s iron furnace and its ore and limestone leases; also offered \$25,000 for C. R. Baird & Co.'s rolling mill. It is proposed to operate the plants if the propositions are accepted.

Sowego—Tannery and Distillery.—H. C. Ashby may install machinery for canning vegetables; also a distillery.

Stuart—Apple Farm.—Stewart Orchard Co. has been organized by W. W. Otey and T. L. Tate of Pulaski, Va., to establish apple farm. M. V. Stedman is president.

West Point—Coal Chutes, etc.—Chesapeake Steamship Co. will construct coal chutes, wants water tanks, etc. Reuben Foster, Baltimore, Md., is president.

WEST VIRGINIA.

Buckhannon—Glass Works.—Buckhannon Cut Glass Co., reported last week with \$10,000 capital, has building completed and is installing machinery; will use water-power and natural gas for lighting.*

Elkins—Manufacturing.—Elkins Manufacturing & Improvement Co. has been incorporated, with capital of \$50,000, by C. H. Livingstone, B. W. Taylor, Jas. S. Posten and others.

Fayetteville—Coal Mines.—Massy Coal & Land Co. has been incorporated, with capital stock of \$100,000, for opening mines, by S. L. Walker, E. G. Pierson, G. J. Grase, P. C. Townsend, C. R. Summerfield and others.

Grafton—Electric-light Plant.—Grafton Gas & Electric Light Co. has let contract for about \$10,000 worth of new machinery and improvements. C. O. Newton, superintendent, can be addressed.

Grafton—Foundry and Machine Shops.—Grafton Foundry & Machine Co., reported as organized last week, has now incorporated, and will at once arrange to build a plant. Capital is placed at \$25,000.

Green Spring—Sand Plant.—Potomac White Sand Co. has let contract for erection of sand plant. C. W. Damron, M. E., Fairmont, W. Va., is architect in charge, and Wagner-Palmros Manufacturing Co., also of Fairmont, has contract for machinery, etc.

Howesville—Coal Lands.—New Jersey Zinc Co. (office in New York city) has purchased 2700 acres of coal land from Vincent E. Goeke of Howesville at \$67,500.

Martinsburg—Orchard Company.—H. S. Cushman, P. Deatrick, F. K. Deatrick and others have incorporated Beckley Orchard Co., with capital of \$10,000.

Mill Creek—Lumber Plant.—Tygarts River Lumber Co. (R. H. Alvey, Jr., secretary, Hagerstown, Md.) is preparing to develop its 10,000 acres of timber land recently purchased. A six-mile standard-gauge railroad is being constructed into the forest, and a lumber mill with annual capacity of 25,000,000 feet will be erected.

Morgantown—Flour Mill.—S. M. Pollock and W. C. Armstrong of Morgantown, Wm. Pollock of Washington, D. C., and others have incorporated The Flour Mill Co., with capital of \$10,000, to manufacture flour and feed.

Morgantown—Coal Mining and Coke Manufacturing.—Chartered: Great Eastern Coal & Coke Co., with capital of \$50,000, by W. M. E. Glascock, Frank Cox, Geo. C. Baher, Robt. E. Guy, each of Morgantown, and Stephen Maron of Dry Brook, W. Va., to mine coal and manufacture coke.

New Martinsville—Improvement Company.—Oscar F. Taylor and C. T. Woods of New Martinsville, G. C. Jansen, A. J. Wagner, T. G. Crapps and others of Wheeling have incorporated New Martinsville Improvement Co., with capital stock of \$100,000.

Parkersburg—Printing Plant.—W. A. Elletson, Geo. Elletson, Jr., H. C. Elletson and others have incorporated Elletson Printarium, with capital stock of \$50,000, to conduct printing plant.

Philippi—Coal Mines.—Glade Coal Mining Co. has been incorporated, with capital stock of \$1,000,000, for coal mining, by Chas. F. Teters, S. A. Moore, Fred O. Blue, Jas. E. Hall, each of Philippi, and Floyd Teters of Beilington, W. Va.

Pocahontas—Coke Ovens, etc.—United States Coal & Coke Co., mentioned at length June 12 and 19, is not yet organized, but will soon effect organization and elect as president Thomas Lynch, president of H. C. Frick Coke Co. of Pittsburg, Pa., etc. The United States Company will be the operating company for the properties leased from the Pocahontas Coal & Coke Co., previously mentioned, and is a subsidiary enterprise of the United States Steel Corporation of New York city. The electric-power plant, for which plans are being prepared, as stated last week, has now been entirely contracted for, the machinery to cost about \$100,000. W. G. Wilkins, Westinghouse Building, Pittsburg, Pa., is chief engineer of these proposed developments.

Salem—Lamp-chimney Works.—Geo. W. F. Randolph, Geo. H. Ross, R. D. Stewart, John Carney and W. D. Montgomery have incorporated Read Lamp Chimney Co., to manufacture lamp chimneys. Capital is \$25,000.

Welch—Coal Mining.—H. V. McNeer and H. S. Brown of Bramwell, W. Va.; W. T. Hufford of Welch, W. Va., and C. A. Devinney of Kyle, W. Va., have incorporated Welch Coal & Coke Co., with capital of \$50,000, to mine coal and manufacture coke.

Wheatland—Flour Mill.—W. C. Feagans' flour mill, reported last week, has been completed with a capacity of thirty barrels daily.

Wheeling—Nursery.—J. M. Brown of Wheeling, John D. Driggs and J. C. Dent of Bridgeport, Ohio, and others have incorporated Upland Nursery Co., with capital of \$30,000, to cultivate plants, etc.

Wheeling—Tobacco Company.—Frank Backman and C. E. Morris of Wheeling, J. G. Kellar and W. R. Dorsey of Sherrard and others have incorporated Ohio Valley Tobacco Co., with capital of \$25,000.

INDIAN TERRITORY.

Checotah—Cotton-oil Mill.—Checotah Cotton Oil Co. (reported last week under Chattanooga, Tenn., as incorporated) has organized with H. B. Spaulding of Checotah, president; G. N. Henson of Chattanooga, Tenn., vice-president, and G. C. Bushnell of Muscogee, I. T., manager. Contracts have been let and mill is under construction. Capital is \$80,000.

Wagoner—Water-works.—Rees & Rees of Fayetteville, Ark., have received contract to construct system of water-works for city. Pumping capacity per twenty-four hours will be 1,000,000 gallons. Estimated cost of plant about \$135,000. No bids will be wanted on material for ninety days.*

OKLAHOMA TERRITORY.

Blackwell—Water-works.—City has voted bonds for \$40,000 to construct water-works. It is understood that contract is practically closed. Address "The Mayor."

Hobart—Nursery.—Jones Bros. & Co. have incorporated, with \$25,000 capital, to conduct nursery, etc. Incorporators are N. F. Hobart, A. J. Dunlop, Jas. A. Jones and others.

Hobart—Brick and Tile Works.—Hobart Brick & Tile Co. has been incorporated, with capital of \$20,000, by A. J. Dunlop, J. W. Stokes and R. M. Carr.

Iconium—Land Improvement.—Iconium Improvement Co. has been incorporated, with capital of \$5000, for townsite improvements, by W. H. Williams and M. C. Hamer of Iconium, and J. C. Foster of Guthrie, O. T.

Lawton—Brick Works.—Lawton Pressed Brick & Tile Co., lately reported, with \$50,000 capital, has let contract for erection of building and installation of machinery for manufacturing 20,000 press brick daily, also tiling of all descriptions; will have power sufficient to double capacity. Sam Strauss is manager.

Lawton—Ice and Cold-storage Plant.—Consumers' Pure Ice & Cold Storage Co., lately reported incorporated with \$100,000 capital, will erect 50-ton ice plant and cold-storage station, contracts for which have been awarded; main building to be of brick, 65x150 feet.

Navina—Improvements.—C. E. Miller, H. L. White, John Borg and others have incorporated Navina Improvement Co., with capital of \$10,000.

Newkirk—Stone Planer.—Newkirk Stone & Construction Co., reported incorporated last week with \$10,000 capital, is erecting a stone planer. W. D. Lewis is general manager.*

Oklahoma City—Gas and Oil Wells.—R. F. Nell of Oklahoma City, I. V. Craig and Jas. Vause, Jr., of Mattoon, Ill., have incorporated Illinois Oil & Gas Co. to drill for oil and gas. Capital is \$100,000.

BUILDING NOTES

Asheville, N. C.—Masonic Temple.—W. F. Randolph and others have incorporated Asheville Masonic Building Co., with capital of \$75,000.

Baltimore, Md.—Church Improvements.—Thomas L. Jones, 317 Clay street, has contract at about \$60,000 for constructing addition and steeple (175 feet high) for First Baptist Church. J. E. Sperry prepared plans.

Baltimore, Md.—Church.—Theodore G. Ahrens has prepared plans for \$6000 P. E. church building.

Baltimore, Md.—Bank Building.—J. A. Hambleton & Co. have ordered Baldwin & Pennington to prepare plans for bank building 40x158 feet.

Baltimore, Md.—Store Building.—W. J. Adams Co. will erect \$25,000 store building 21x157 feet, with glass front, etc.

Baltimore, Md.—Bank Building.—National Howard Bank has received plans and specifications prepared by Jos. E. Sperry for its proposed fireproof building 36x70 feet.

Baltimore, Md.—Church.—Contract for Aisquith Street Presbyterian Church building (to cost \$15,000), mentioned last week, does not include the furniture and heating apparatus. These two contracts will be placed direct by W. J. Clendenin, chairman, 1402 North Broadway, and Messrs. Glidden & Myers, architects.

Baltimore, Md.—Office Building.—Mutual Life Insurance Co. has let contract to M. L. Wright for conversion of building into an office structure at a cost of about \$15,000; plans by Elliott & Emmart.

Baltimore, Md.—Hotel and Theater.—Jas. L. Kernan (care Hotel Rennett) has engaged John H. Allen of Philadelphia, Pa., as architect for his proposed hotel and theater, mentioned last week. About \$500,000 will be expended for the improvements.

Birmingham, Ala.—Warehouse.—W. C. Agee & Co. will erect one-story corrugated-iron warehouse, to cost \$68,000.

Brewton, Ala.—Bank Building.—T. R. Miller, president, is supervising construction of bank building recently reported; structure to be two stories high, 25x80 feet, and cost \$4000.*

Charleston, W. Va.—Bank Building.—Charleston National Bank's building, reported last week, has not yet been contracted for.

Elsner & Anderson are architects in charge.

Columbus, Miss.—College Buildings.—B. S. McClanahan has contract at about \$6000 to erect industrial hall and laundry for the Industrial Institute.

El Paso, Texas—Office Building.—Guarantee Trust Co. is conferring with Isaac F. Taylor & Co., architects, of St. Louis, Mo., relative to plans for a \$100,000 office building.

Fulton, Ky.—Church.—A. L. Lassiter of Paducah, Ky., has completed plans for Baptist Church to cost \$7000. W. D. Turnley is pastor.

Jackson, Miss.—University Buildings.—University of Mississippi, Robert B. Fulton, chancellor, will determine plans July 8 for administration and science building to cost \$30,000, dormitories to cost \$20,000, steam-heating system to cost \$4000, improvements to water and power plants to cost \$5000. Theodore C. Link, St. Louis, Mo., is the architect.

Laurel, Miss.—Depot.—Gulf & Ship Island Railroad will build depot. L. A. Washington of Gulfport, Miss., is chief engineer.

Louisville, Ga.—Warehouse.—Louisville Manufacturing Co. will build a warehouse.

Louisville, Ky.—Office Building.—Dodd & Cobb have prepared plans for office building for National Trust Co.

Louisville, Ky.—Warehouse.—McDonald & Shebley have prepared plans for grain warehouse for E. H. Becker.

Manchester, Va.—School.—City contemplates erecting \$10,000 school building. Address "The Mayor."

Meridian, Miss.—School.—City will soon ask for bids for erection of school; \$40,000 is said to be available. Address "The Mayor."

Monroeville, Ala.—Courthouse.—Bids will be opened July 14 for construction of the courthouse recently reported, to cost about \$36,000. Plans and specifications on file with probate judge, Monroeville, and with B. B. Smith, architect, Moses Building, Montgomery, Ala.

Murphy, N. C.—Bank Building.—Bank of Murphy has let contract for office building.

Norfolk, Va.—Warehouse, etc.—Hoster Brewery Co. of Columbus, Ohio, will build warehouse and stables, to cost \$40,000. Geo. C. Frank is local manager.

Orange, Texas—Store Building.—J. W. Link has awarded contract to N. A. Dawson at about \$15,000 for erection of store building 80x140 feet, plate-glass front, brick construction, etc.

Paducah, Ky.—Library Building.—A. L. Lassiter has completed plans for construction of Carnegie Library; bids for the work will be opened July 10; \$30,000 available. The stacks and furniture and steam-heating plant will be let under separate contracts; cost to be \$35,000 complete.

Richmond, Va.—Hotel.—Mrs. A. D. Atkinson has received new specifications for Harrison Albright of Charleston, W. Va., for her proposed Hotel Richmond. About \$240,000 will be the cost. W. A. Chesterman of Richmond and the Geo. A. Fuller Co. of Chicago, Baltimore, etc., will be invited to bid for the construction. Others may also be asked.

Richmond, Va.—Flats Building.—D. W. Anderson has prepared plans for four-story brick flats building for D. A. Baird.

Richmond, Va.—Church.—Joseph H. McGuire, 45 East Forty-second street, New York, has prepared plans for R. C. Cathedral to cost \$250,000.

Rome, Ga.—Depot.—Southern Railway Co. is reported as to build depot to cost from \$60,000 to \$100,000. Frank S. Gannon of Washington, D. C., is general manager.

Starkville, Miss.—College Buildings.—Agricultural and Mechanical College has let contract to McGhee & Humphreys of Jackson, Miss., for construction of museum, library and hospital buildings.

St. Louis, Mo.—Church.—Episcopal Church of the Ascension has purchased site 60x180 feet for a \$25,000 edifice.

Tuscaloosa, Ala.—Store Buildings.—Montgomery I. Burton has let contract for construction of three large store buildings.

Versailles, Ky.—Jail and Residence.—John Rump of Frankfort, Ky., has contract at \$7475 to build county jail and jailer's residence.

Versailles, Ky.—Seminary.—Ashland Seminary has accepted plans for addition three stories high, of brick, etc., to cost \$16,000.

Watonga, O. T.—Hotel.—J. L. Trout and others have incorporated Watonga Hotel Co., with capital of \$15,000.

Wilmington, N. C.—Store.—R. R. Bellamy will erect two-story brick store building after plans by H. E. Bonitz, who will have charge of construction.

RAILROAD CONSTRUCTION.

Railways.

Arcadia, La.—A. L. Atkins, president of the Business Men's League of Arcadia, writes to the Manufacturers' Record that the league proposes building a railroad six miles long to connect with the Louisiana & Northwestern Railway.

Asheville, N. C.—George T. Car's of New York has, it is reported, been awarded the contract for the proposed Asheville, Rutherfordton & Hickorynut Gap Railroad.

Austin, Texas.—An ordinance has been introduced in the city council authorizing the Austin Dam & Suburban Railway Co. to operate its cars by steam or electricity. It is rumored that this is for the entrance of the Missouri, Kansas & Texas Railway. The latter is also reported to have bought the Trinity, Cameron & Western right of way from Granger to Georgetown. A. A. Allen is vice-president and general manager of the Missouri, Kansas & Texas; office at St. Louis.

Baltimore, Md.—Plans have been made for the extension and improvement of the Suffolk & Carolina Railroad in the southeastern part of Virginia. An extension will be built to Edenton, N. C., and another to Elizabeth City, N. C. William H. Bosley of John S. Gittings & Co., Baltimore, is president.

Charleston, W. Va.—The Big Sandy, East Lynne & Guyan Railroad Co. has been incorporated to build from the mouth of White's creek, on the West Virginia side of the Big Sandy river. The incorporators are G. B. Miller, A. I. Miller and Clyde Miller of Radford, B. J. Pritchard of Wayne and W. P. Ferguson of Kenova; office to be at Wayne, W. Va.

Charleston, W. Va.—The Elk Valley & Midland Railroad Co. has been incorporated to build from Centerville, W. Va., at a junction with the Baltimore & Ohio Railroad, to Pocahontas county, West Virginia. The incorporators are John T. McGraw of Grafton, Geo. W. Curtin and Jacob Fisher of Sutton, C. P. Dorr of Addison and Joseph Fucy of Weston, W. Va.

Chattanooga, Tenn.—The Alabama Great Southern Railway has applied to the city council to construct tracks on Market street. Officials of the Queen & Crescent Route have inspected the proposed new yard between Chattanooga and Chieco. W. J. Murphy is general manager of both lines; office at Cincinnati, Ohio.

Chattanooga, Tenn.—W. W. Kent, general manager of the Chattanooga Southern, is quoted as positively denying the report that the line has been sold to the Louisville & Nashville Railroad, and as adding that the company will at once improve the road and equipment.

Chattanooga, Tenn.—It is reported that the Central of Georgia Railway will build a five-mile extension from its branch at Fullerton, Ala., to coal lands recently purchased by the Alabama Consolidated Steel & Wire Co. T. D. Kline is superintendent of the Georgia Central; office at Savannah.

Chestertown, Md.—Hope H. Barroll has obtained a franchise to build and operate an electric railway in Chestertown, and has applied to the county commissioners for rights of way on the public roads in order to build extensions to Tolchester and Rock Hall.

Chicago, Ill.—Stockholders of the Illinois Central Railroad Co. are to meet in Chicago on August 29 to vote on the recommendation of the board of directors to issue \$15,000,000 of new stock for the purpose of building additional second track, equipment, yards and other facilities. J. T. Harahan is vice-president and general manager; office at Chicago.

Clarksville, Tenn.—Dr. W. W. Scott, U. Z. Snell and M. E. Moore of Pleasant View are interested in a plan to construct an electric railway from Clarksville via Sango and Pleasant View to Nashville.

Columbia, S. C.—John Blair McAfee of Philadelphia, who has the contract for building the Chattanooga, Augusta & Charleston Railroad, which will connect with the Seaboard, is quoted as stating that three engineering corps are now in the field.

Cumberland, Md.—Philadelphia and Pittsburg capitalists are looking over the route for a proposed electric railway between Cumberland and Bedford, Pa.

Dallas, Texas.—It is reported that the Mexican Central Railway will build an extension northward into Texas from Monterey, Mexico, to connect with the St. Louis & San Francisco, now being extended from Brownwood to Brady, Texas. The distance between Monterey and Brady is about 300 miles.

Donaldsonville, La.—Dr. Armand Mary of New Orleans has applied to the council for a franchise through Donaldsonville for the

electric railway which he proposes to construct to Napoleonville. M. D. Bringer also presented to the council his plans for a steam or electric railway between Napoleonville and Donaldsonville.

Farmville, Va.—An election is to be held on July 1 in Prince Edward county to decide the question of issuing \$60,000 of bonds towards building the Orange & Keysville Railway. Col. R. T. Hubbard is counsel for the company.

Fayetteville, N. C.—The Aberdeen & Rockfish Railroad is being rapidly constructed to Fayetteville. John Blue is the principal owner.

Fort Worth, Texas.—The plan to extend the Wichita Valley Railroad from Seymour to Stamford has, it is stated, been temporarily abandoned, owing to Wichita Falls refusing to raise necessary subscriptions. Morgan Jones is president; office at Wichita Falls, Texas.

Gallatin, Tenn.—Mayor James N. Blackburn is advocating the construction of an electric railroad from Gallatin to the Cumberland river, three miles.

Guthrie, Okla.—The Choctaw, Oklahoma & Gulf Railroad has filed a mortgage at Tecumseh for \$1,000,000, which is reported to be for an extension from Guthrie via Shawnee and Denison, Texas, to the Gulf. It is also reported that an extension from Amarillo, Texas, to Albuquerque, N. M., will be built. J. F. Holden is general manager; office at Little Rock, Ark.

High Point, N. C.—The People's Transportation & Power Co. has elected officers as follows: President, D. A. Waters; vice-president, H. B. Sawyer; general manager, Cliff B. Elder, all of Philadelphia, while E. D. Steele of High Point is elected secretary and treasurer. The proposed line is to run from Thomasville through High Point to Greensboro, and also from High Point to Kernersville, and thence to Winston-Salem. The final survey has begun.

Houston, Texas.—Mr. W. G. Van Vleck, vice-president and general manager of the Texas & New Orleans Railroad Co., writes the Manufacturers' Record, saying that no conclusion has been reached "with reference to building a line to the Sour Lake oil field." This is a Southern Pacific road.

Houston, Texas.—It is reported that construction is to begin immediately on the Texas & New Orleans Railroad short line from Lake Charles, La., to Gueydan. W. G. Van Vleck is vice-president and general manager; office at Houston, Texas.

Houston, Texas.—An ordinance is before the council to permit the Southern Pacific Railway to build four more tracks across Montgomery avenue, provided the company will build a tunnel under the tracks to carry the street traffic.

Houston, Texas.—C. C. Waller, president of the Southwestern Promoting Co., is quoted as stating that a contract has been signed for building sixty miles of the proposed railroad between Houston and Stoneham, construction to begin August 1. Some time ago the Southwestern Promoting Co. purchased the charter and grade of the Dallas & Pacific road, extending 100 miles northwest from Dallas. The work on this line is now stated to be progressing. B. Wilgus of Joplin, Mo., is reported to be interested.

Jackson, Miss.—It is proposed to build an electric railway from Jackson to Clinton, ten miles. The trustees of Mississippi College at Clinton are interested.

Jonesboro, Tenn.—H. H. Kirkpatrick has returned from Dayton, Ohio, where he conferred with gentlemen who propose building an electric railway from Jonesboro to Johnson City. He is quoted as expressing the opinion that construction will begin soon.

Kansas City, Mo.—It is reported that contracts have been signed in Chicago to build a railroad from Stoneham, Texas, to Houston. Stoneham is on the Atchison, Topeka & Santa Fe Railway system, and the new line is supposed to be for a short line from Beaumont to the Gulf. H. U. Mudge is general manager; office at Topeka, Kan.

Knoxville, Tenn.—The survey has begun for the proposed Knoxville, Kimberlin Heights & Sevierville Electric Railroad. J. W. Coburn is the contractor.

Laurens, S. C.—Mr. S. G. McDaniel writes to the Manufacturers' Record as follows: "Subscriptions are being taken for building an electric railroad between Laurens and Clinton, nine miles. Myself, R. A. Cooper and Hy. Simpson are working it up, and meeting with success. We expect to organize soon."

Lexington, Ky.—The Lexington & Georgetown Interurban Line proposes to construct a "Y" downtown.

Louisville, Ga.—Col. W. L. Phillips is in-

terested in a plan, it is stated, to build a railroad from Louisville to Wrens, eighteen miles. It is reported that work will begin on the line within sixty days.

Louisville, Ky.—The proposed Falls City Belt Line Railway has applied for permission to lay tracks in the western part of the city to connect with the Southern Railway, the Pennsylvania Railroad and other lines.

Louisville, Ky.—It is reported that the proposed electric railroad which is to follow the line of the Narrow-Gauge Railway will be underwritten by Eastern capitalists connected with the Citizens' General Electric Co. of Louisville.

Louisville, Ky.—H. P. Spencer, general manager of the Louisville and St. Louis lines of the Southern Railway, and A. P. Humphrey of Louisville have conferred with G. W. Welsh, J. A. Quisenberry, Hood Worthington and others of Danville, Ky., concerning the proposed extension of the Burgin branch of the Louisville Southern from Harrodsburg to Danville. Mr. Spencer's office is at St. Louis.

Louisville, Ky.—The contract for building the Chesapeake & Ohio Railroad extension from Whitehouse, Ky., to the breaks of the Big Sandy river in Virginia has been awarded, it is reported, to Langhorn & Langhorn of Richmond, Va. C. E. Doyle is general manager; office at Richmond.

McMinnville, Tenn.—Capitalists from Cleveland, Ohio, are prospecting for an electric railway from McMinnville via Woodbury to Nashville. It is stated that rights of way for part of the distance have been secured.

Memphis, Tenn.—Mr. J. T. Harahan, second vice-president of the Yazoo & Mississippi Valley Railroad Co., writes from Chicago to the Manufacturers' Record that the company has let a contract for a line from Belzona to Yazoo City, Miss., 25.6 miles long. This is an Illinois Central line.

Memphis, Tenn.—B. L. Winchell, vice-president and general manager of the St. Louis & San Francisco, is quoted as stating that the company will build a three-mile switch track from Kansas avenue to South Memphis. Mr. Winchell's office is at St. Louis.

Meridian, Miss.—The charter of the Tallahatchie Railroad Co. has been filed to build a railroad from a point near Chunkey Station, on the Alabama & Vicksburg Railroad, eleven miles west of Meridian, northward to Philadelphia and Louisville, Miss. The incorporators are James Meehan, R. W. Meehan and Patrick Meehan of Milwaukee, Wis.; J. W. Wright and William Hall of Meridian, Miss., and others.

Mexico, Mex.—Mr. H. R. Nickerson, vice-president and general manager of the Mexican Central Railway, writes to the Manufacturers' Record that the company has not purchased the Hidalgo & Northeastern, but has bought the Pachuca, Zacualtipan & Tampico Railway and concessions, and is now building a line to connect it with the Mexican Central proper at Lecheria, which is near the City of Mexico. Bell & Semmes have the grading contract between Lecheria and Sandoval. Surveys are also being made between Apulco and Tampico.

Mexico, Mex.—C. B. Eames of St. Louis has, it is stated, obtained a concession for the Tuxpan Valley Railroad, seventy miles long, from Tuxpan to a point at or near Jabonera, on the Mexican Central's projected Tampico line. Geo. W. Deits is vice-president and general manager.

Mobile, Ala.—Mr. F. B. Merrill, president and general manager of the Mobile, Jackson & Kansas City Railroad Co., writes to the Manufacturers' Record as follows: "We have placed under contract the extension of 100 miles from Beaumont, Miss., to Decatur, Miss., the general contractors being the Gulf City Construction Co. This firm has let the grading and cutting to Smith & Merrill, now of Hattiesburg, Miss. The furnishing of piles and the driving of them has been let to G. R. Anderson of Hattiesburg. The building of three steel bridges has been let to Snare & Triest, 39 Cortlandt street, New York city. The contract for 2,500,000 feet of timber for bridges, etc., was awarded to the Rose Lumber Co., Merrill, Miss. Rails and all fastenings are being furnished by the Pennsylvania Steel Co." Mr. Merrill also says that the Gulf & Chicago Railroad, recently purchased by his company, will be taken over on July 1. The Gulf City Construction Co. is establishing tie camps and getting out its own ties and also framing all timber.

Monterey, Mexico.—It is reported that the Atchison, Topeka & Santa Fe will build from Roswell, N. M., to El Paso, Texas, to secure a greater share of traffic to and from Mexico. H. U. Mudge is general manager; office at Topeka, Kan.

Montague, Texas.—The Oklahoma & Texas Southern Railway Co. has, it is reported,

awarded a contract to J. Johnson & Co. for grading from Nocona to Montague, eleven and one-half miles. E. E. Churchill of Fort Worth is general manager, and he is reported to have placed orders for ties and bridge material.

Myrtle, Ky.—John C. Mayo of Whitehouse (P. O. Myrtle) is among those interested in the Southern Coal & Coke Co., which proposes to build a railway to develop its property.

Nashville, Tenn.—President Jere Baxter of the Tennessee Central says that the contract for building the proposed connection to the Illinois Central near Gracey or Hopkinsville will be let in two weeks.

Nashville, Tenn.—The Nashville & Lewisburg Railway Co. will, it is stated, immediately begin a preliminary survey from Nashville to Lewisburg. Robert L. Lund will be the engineer in charge. Dr. J. P. Sheppard is president of the Lewisburg Company.

Norfolk, Va.—The James River Railway Co. has been organized, with Congressman H. L. Maynard as president; Gustavus Ober of Baltimore as vice-president; A. J. Phillips, treasurer, with L. M. Watson, secretary, to build a railroad through Smithfield, Suffolk and Richmond, and perhaps to the coal fields of West Virginia.

Norfolk, Va.—It is stated that the seven railroads entering Norfolk have completed arrangements to build a union station on the Belt Line. Among the railroads interested are the Southern Railway, C. H. Ackert, general manager, Washington, D. C.; Seaboard Air Line, J. M. Barr, general manager, Portsmouth, Va.; Atlantic Coast Line, J. R. Kenly, general manager, Wilmington, N. C.; Norfolk & Western Railway, L. E. Johnson, general manager, Roanoke, Va.

Orange, Texas.—The Orange & Northwestern Railway Co. has filed an amendment to its charter to build a line 150 miles long from a point on the eastern boundary of Jasper county northward to Marshall; also for an extension 195 miles long northwest from Buna to Corsicana; also for an extension five miles long from West Orange to South Orange. C. W. Hole is general manager and purchasing agent; office at Orange, Texas.

Roanoke, Va.—Mr. L. E. Johnson, vice-president and general manager of the Norfolk & Western Railway, writing to the Manufacturers' Record, denies the report that the company will spend \$500,000 in betterments north of Kenova. He adds: "The Norfolk & Western is doing a considerable amount of work in the way of reducing curves, cutting down grades and putting in permanent bridges over the entire system, and putting in sections of double track on various parts of the main line."

Saltillo, Mexico.—A. W. Lillendahl, general manager of the Coahuila & Pacific Railroad, is quoted as stating that the new line will reach Torreon by July 9. It is also announced that the company will build a feeder from Parras to San Lorenzo, ten miles.

St. Louis, Mo.—It is reported that the Chicago, Rock Island & Pacific Railway will absorb the Chicago, Peoria & St. Louis and build connections. Wm. D. Leeds is president of the Rock Island; office at Chicago.

St. Louis, Mo.—The Missouri Pacific Railway has, it is reported, made surveys and received bids for a new line from Carthage to Ashbury, Mo. The line is chartered under the name of the Carthage & Western Railroad, and will be eighteen miles long. The incorporators are George J. Gould, Russell Harding and others of the Missouri Pacific. Russell Harding is third vice-president and general manager; office at St. Louis.

Washington, N. C.—Mr. J. B. Hutchinson, general manager of the Pennsylvania Railroad, writes the Manufacturers' Record from Philadelphia, saying that "there is no truth in the rumor" that the company has purchased the Washington & Portsmouth Railroad.

Wytheville, Va.—The Floyd County Court has granted a mandamus to require the board of supervisors to make the subscription of \$100,000 to the Mt. Rogers & Eastern Railroad voted by the county last July. Arthur Meigs of Jacksonville, Fla., is among those interested in the line, and is quoted as saying that construction will soon begin.

Street Railways.

Chattanooga, Tenn.—The Rapid Transit Co. has finished its track on Beck street, in Sherman Heights, to the depot at Boyce, and it is now in use.

Chattanooga, Tenn.—It is reported that the Chattanooga Electric Railway Co. will build a new incline up Lookout mountain, for which surveys were made several months ago. The company is now building a line on Chamberlain avenue, having laid track on Beck street, in Sherman Heights.

Dallas, Texas.—The Dallas Consolidated Electric Railway Co. has purchased 400 tons of heavy rails to be used on the Main street, McKinney avenue and Live Oak street line. A contract has also been let for fifteen cars. It is reported that an agreement will be made between the Consolidated and A. K. Bonta, who has secured a franchise for the Metropolitan Electric Street Railway Co., and has begun construction in East Dallas.

Danville, Va.—The Danville Railway & Electric Co. has decided to build an extension.

Fort Worth, Texas.—The trustees of the Polytechnic College have, it is reported, applied to President George T. Bishop of the Traction Company to build a half-mile extension to the college. Petitions for various street-railway franchises presented to the city council have been laid over until the next meeting.

Little Rock, Ark.—General Manager J. A. Trawick of the Street Railway Co. says that he expects to complete the extensions and reconstruction by September 1.

Macon, Ga.—John L. Williams & Sons of Richmond and J. W. Middendorf & Co. of Baltimore are negotiating, it is understood, for the purchase of the Macon Consolidated Street Railroad Co. and the Macon Electric Light & Railroad Co.

Montgomery, Ala.—It is announced that Raphael Semmes of Mobile, Ala., has been elected general manager of the Montgomery Street Railway Co. Mr. Semmes is quoted as saying that heavy track will be substituted for the present track, and that the rolling stock will be improved.

New Orleans, La.—The New Orleans Street Railways Co., of which H. H. Pearson is president, is preparing to make improvements.

Norfolk, Va.—The Norfolk Railway & Light Co. proposes to make improvements in Berkeley. E. C. Hathaway is general manager.

Norfolk, Va.—The Supreme Court at Wytheville, Va., has sustained the decision of the lower court, which dissolved the injunction against the Bay Shore Terminal Co. The latter will thus be enabled to build a connection between its Ocean View division and its city line.

Richmond, Va.—Samuel P. Waddill and others are planning to build an electric railway to extend from Richmond to the National Cemetery.

Richmond, Va.—The consolidation of the street railways in Richmond under the title of the Virginia Passenger & Power Co. has been completed. F. Sitterding is president.

Tusculum, Ala.—J. T. Crass of Chattanooga, Tenn., and N. F. Thompson & Son of Sheffield, Ala., are each seeking an electric street railway franchise to connect the cities of Sheffield, Florence and Tusculum.

Washington, D. C.—The commissioners of the District of Columbia have favorably recommended, with an amendment, the bill before Congress to extend the time for constructing the East Washington Heights Traction Railroad.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Beet-sugar Mill.—See "Sugar Mill."

Boiler and Engine.—Kershaw Oil Mill, J. F. O'Brien, manager, Kershaw, S. C., will let contract June 30 and July 1 for 14x42 or 16x26 Corliss engine; 125-horse-power boiler, to carry 140 pounds working pressure; 150-horse-power feed-water heater, 5½x5 B. F. pump, also piping, a 70-ton railroad track scale and three five-ton wagon scales.

Boiler and Engine.—Sydnor Pump & Well Co., Richmond, Va., wants to secure agency for boiler and engine.

Boiler and Engine.—J. A. Springer & Co., Wilmington, N. C., will probably want small portable boiler and engine.

Boilers and Engine.—See "Oil Mill."

Boilers and Engine.—See "Lumber Plant."

Bottling Plant.—R. D. Wilson, Collierville, Tenn., wants bottling plant.

Bridge.—F. A. H. Schroder, county clerk, Walhalla, S. C., will let contract July 10 for steel bridge.

Building Supplies.—T. R. Miller, president, Brewton, Ala., will need bank furniture and fixtures, sanitary and electric-light equipment, etc.

Chair Machinery.—Otto F. Briede, Felicity and Religious streets, New Orleans, La., wants to correspond with chair-machinery manufacturers.

Chemicals.—Anti-friction Lubricating Co., Geo. H. Chandler, 904 F street N. W., Washington, D. C., wants addresses of manufacturers of potassium carbonate and sal-soda in crude form.

Cotton Gins.—See "Ice Plant."

Electrical Machinery.—Martinsburg Power Co., Martinsburg, W. Va., will need dynamos, transformers, supplies for transmission line, etc.

Electric-light Plant.—City of Dalton, Ga., Julian McCamy, mayor, will open bids July 7 for furnishing and erecting arc-lighting plant, to include 128-horse-power engine and boilers, 75-kilowatt generator, pole lines, building, etc. Plans at office of mayor, A. St. C. Dunstan, Auburn, Ala., is engineer.

Electric-light Plant.—City of Tallahassee, Fla., will receive bids on electric-light plant. An electrician will be wanted. Address "The Mayor."

Electric Machines.—See "Lumber Plant."

Electric Plant.—See "Oil Mill."

Electric Plant.—Crescent Hosiery Co., Niotia, Tenn., wants electric plant, pulleys, belting, shafting, etc.

Elevator.—A. L. Lassiter, Paducah, Ky., wants to buy an elevator.

Engine.—See "Printing Plant."

Engine.—Acme Brewing Co., Macon, Ga., wants second-hand simple Corliss engine, 125 horse-power, of standard make.

Engine.—Frederick Starch & Manufacturing Co., care Wm. B. Price, Frederick, Md., is taking estimates on engine and starch machinery.

Engine.—Walker Bros., Griffin, Ga., will buy 50-horse-power engine.

Engine.—Drew Lumber Co., Columbia, Fla., wants Corliss engine, modern build, new or second-hand, 26x48 inches, heavy duty, counter-balanced disk crank, solid ends connecting rod, two band wheels two-inch to 30-inch face. Detailed description, cuts and name of builder must accompany offer.

Excelsior Machinery.—Lowe & Troxell Co., De Leon, Texas, wants to correspond with excelsior manufacturers.

Fishing Equipment.—Will Lubbock, Rusk, Texas, wants addresses of manufacturers of egged and barrel-shaped cork floats for fishing lines.

Flour Mill.—W. F. Wilson, Halls, Tenn., will need 75-barrel flour mill excepting boiler and engine.

Furniture (Church).—C. P. Mayhew, Box 365, Roanoke, Va., wants catalogue and prices on church furniture.

Furniture (Church).—See Building Note under Baltimore, Md.

General Machinery.—Geo. W. Hart, Berkeley, La., wants to represent machinery manufacturers, specialty manufacturers or oil company.

Ginnery.—See "Oil Mill."

Guard Cribbs.—W. E. Craighill, engineer U. S. A., Wheeling, W. Va., will open bids July 15 at United States engineering office, Charleston, W. Va., for constructing three guard cribs, also dam work. Information furnished by either office.

Heating Apparatus.—See Building Note under Baltimore, Md.

Heating Apparatus.—See "Ice Plant."

Hydraulic Machinery.—See "Ice Plant."

Ice Plant.—L. G. Young, engineer for Buffalo Cotton Mills, Union, S. C., wants 20-ton ice plant complete, cotton-gin system, 10-ton cottonseed-oil mill, two hydraulic rams, heating apparatus and rolling partitions for large church.

Iron Castings.—Dixie Manufacturing Co., Greensboro, N. C., wants light malleable-iron castings.

Iron-working Machinery.—Newkirk Stone & Construction Co., Newkirk, O. T., will probably need large iron planer; second-hand will do.

Iron-works Machinery.—See "Pump-manufacturing Machinery."

Laundry.—Yale Laundry, Taylor & Walker, proprietors, 106 West Fayette street, Baltimore, Md., will require laundry equipment, boiler, engine, etc.

Lumber Plant.—Sandersville Manufacturing Co., A. S. Bailey, manager, Sandersville, Miss., will need saws, shingle machines, shuttle machinery, handle machines, boilers, engine, electric machine, dry-kiln, etc.

Machine Tools.—Drew Lumber Co., Columbia, Fla., wants screw-cutting engine lathe, good second-hand modern tool, 30 to 36-inch swing, about twelve feet between centers, hollow spindle, compound rest, power cross-feed. Full description, with cuts and name of builders, must accompany offers.

Manufacturers.—See "General Machinery."

Oil Mill.—G. C. McEachern, Piedmont, S. C., wants second-hand cotton-oil mill complete at a bargain.

Oil Mill.—Clem Cotton Oil Co., Clem, Ga., will need 10, 15 or 20-ton cotton-oil mill (no power), also gin machines.

Oil Mill.—Arcadia Cotton Oil Mill & Manufacturing Co., Arcadia, La., will need two-press oil mill of thirty tons capacity day and night, with plans for frame and steel iron building, roofing, siding, two 80 or 100-horse-power boilers, one Corliss engine, 125 or 150 horse-power, electric plant, etc. Address L. F. Wakeman.

Oil Mill.—See "Boiler and Engine."

Oil Mills.—See "Ice Plant."

Piping.—Osborne Petroleum Co., 620 Equitable Building, Louisville, Ky., wants prices on 5½-inch casing and on 10,000 feet of second-hand two-inch pipe.

Piping.—C. J. Edwards, Abbeville, La., wants to correspond with manufacturers of well casing, sizes four, six, eight and ten inch.

Piping.—G. N. Henson, purchasing agent, Chattanooga, Tenn., wants about 800 feet of four-inch and about 800 feet of 2½-inch second-hand black piping; also other quantities and sizes. Wants first-class condition and low price.

Plumbing.—Geo. McManus, U. S. A., Fort Washington, Md., will open bids July 18 for installing plumbing in guardhouse at Fort Hunt, Va. Plans and specifications on application.

Printing Plant.—Rhodhiss Publishing Co., Rhodhiss, N. C., wants to buy paper press, job press, gasoline engine, paper cutter, type, etc.

Pulleys.—See "Electric Plant."

Pulleys and Shaft.—F. H. Davis & Co., 53 State street, Boston, Mass., want a belt wheel 18 to 20 feet diameter, 36-inch face; also 12 or 14-inch shaft 8 to 12 feet long.

Pulleys, etc.—Buckhannon Cut Glass Co., Box 12, Buckhannon, W. Va., will need pulleys and shaftings.

Pump-manufacturing Machinery.—Gunther Foundry, Machine & Supply Co., San Antonio, Texas, will need machinery for building spiral steam pumps for irrigating.

Quarrying Machinery.—See "Ironworking Machinery."

Railway Equipment.—Drew Lumber Co., Columbia, Fla., wants locomotive, American type, modern construction, forty to fifty tons, cylinders about sixteen inches diameter, boiler guaranteed not less than 150 pounds working steam pressure, driving-wheel centers not over fifty-six inches, solid parallel rods. Full detailed description, including thickness boiler plates, style riveting and bracing, thickness cylinder walls. Photographs must accompany offers.

Railway Supplies.—Peacock's Iron Works, Selma, Ala., wants half-mile of first-class relay 30-pound steel rails delivered in Perry county, Mississippi.

Road Machinery.—Oconee county commissioners, Walhalla, S. C., want prices on two 8 to 10-horse-power traction engines, two road machines, two railroad plows and one rock crusher. Address F. A. H. Schroder, county clerk.

Roofing.—H. C. C., care Manufacturers' Record, wants to correspond with manufacturers of Mackite roofing.

Rosin Manufacturers.—J. B. Bechtel & Co., 719 Sansom street, Philadelphia, Pa., want to correspond with producers of rosin for export.

Saw-mills.—T. C. Berger of Burkeville, Va., wants catalogue and prices of saw-mills.

Scales.—See "Boiler and Engine."

Seawall Construction.—Galveston county commissioners, Galveston, Texas, will open bids in triplicate August 11 for construction of seawall 17,593 feet long, of concrete, on a piling foundation, with rip-rap protection. For information, plans and specifications apply to Geo. W. Boschke, engineer in charge.

Starch Machinery.—See "Engine."

Sugar Mill.—Will W. Moore, Ladonia, Texas, wants estimates on beet-sugar mill.

Tanks.—A. E. Thornton, president, Atlanta,

Ga., wants five to ten oil tanks, about 7500 gallons capacity.

Telephone Equipment.—H. P. Smith, Yancey, Ala., will need telephones, insulators, pins, brackets, wire, etc.

Vehicles.—W. T. Christopher, Americus, Ga., wants six light spring wagons for rural mail delivery.

Water-works.—J. W. Jackson, Ashland, Ala., wants estimates on water-works for town of 100,000 inhabitants.

Water-works.—City of Mt. Pleasant, Texas, wants to contract for water-works. Address S. P. Pounders, mayor.

Water-works.—Rees & Rees, Fayetteville, Ark., will take bids after ninety days for two duplex hydraulic pumps of 1,000,000 gallons capacity per twenty-four hours, 100 fire hydrants, 125-foot tower or standpipe, 35,000 feet of four, six and eight-inch pipe, 39,000 feet of 10-inch pipe, etc.

Water-works.—Town of Houma, La., is about to ask bids on construction of water-works; about \$27,000 is available. Plans and specifications can be seen at office of Geo. C. Morgan, Royal Insurance Building, Chicago.

Well-drilling Machinery.—C. J. Edwards, Abbeville, La., wants prices on rotary well-drilling machinery, new or second-hand.

Well-drilling Machinery.—M. M. Malcolm, Fayetteville, W. Va., wants core-drilling machine with capacity of 500 to 1000 feet; second-hand will answer.

Well-drilling Machinery.—Superior Oil Co., Joseph Miller, president, Decatur, Ill., will need machinery for drilling for oil.

Woodworking Machinery.—H. L. Lawton, Lena, S. C., wants small second-hand flooring machine.

Woodworking Machinery.—See "Chair Machinery."

Woodworking Machinery.—Thomas J. Lillard, Box 178, Elkin, N. C., wants catalogue and price-lists of veneer machinery for cutting poplar dimension stuff.

TRADE LITERATURE.

Locke Company's Steel.—Special catalogue No. 6 has recently been issued by the Locke Steel Belt Co., Bridgeport, Conn., a large manufacturer of steel sprocket chain and attachments. These chains, by reason of their excellence, are widely used.

Atkins & Co. Saws.—"Knots—Can you Untie 'Em?" is the title of a small catalogue issued for mechanics and carpenters by E. C. Atkins & Co., Indianapolis, in advertising their product—saws. Most of the "Knots" are such as any carpenter may be called on at any time to untie.

Automobile Catechism.—The "Remington Automobile Catechism" is a neat little book dealing with automobile supplies recently issued by the Remington Automobile & Motor Co., Utica, N. Y. A second booklet from the same firm, entitled "The Automobile That We Build," contains a number of artistic illustrations, beneath each of which is a two-line rhyme of descriptive matter—a bright and interesting idea.

"A Fifty-Year Roof."—This is the title of a very interesting history of the tinplate industry. Beginning in prehistoric times, when there was no tinplate industry, but when half-clad savages worked spear-heads out of crude iron ore, it covers the centuries of iron industry up to the present time. The book is interesting, well gotten up, nicely printed and profusely illustrated. The American Tinplate Works, Battery Park, New York, is the publisher.

Core Machines and Shakers.—It would be a waste of time to explain to practical foundrymen the advantages of thorough screening of molding core sand before molding, just as it would be waste of time to explain the advantages of a good core machine. Two catalogues of real interest to foundrymen are now being issued by the S. Obermayer Company, Cincinnati, selling agent for "Hammer" patent core machines and "Hanna" patent pneumatic screen shakers. A request will place either or both in your hands.

Anti-Fouling Compound.—The first eighteen pages of the booklet, "Facts Pertaining to Clean Boilers," from Engel & Fengersten Chemical Co., Chicago, contains facts pertaining to boilers, clean and otherwise, which will be of interest to engineers. The anti-fouling compound made by this firm, which prevents the formation of scale in steam boilers, is highly endorsed by the War Department, S. Obermayer & Co., Cincinnati, the North German Lloyd Steamship Co. and others. The pressure table in this leaflet will be found of interest.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record,
Baltimore, Md., June 25.

United Railways issues were conspicuous for activity in the Baltimore stock market during nearly the entire week, but toward the close comparatively little interest was manifested in them, although the first mortgage bonds were in fair demand. The income bonds advanced fractionally, and the common stock was a trifle steadier. The contest for control of the Consolidated Gas Co. of Baltimore was perhaps the principal topic of gossip, and caused some strengthening in the stock of the corporation. Seaboard common stock was a trifle easier, while the bonds were about steady. Cotton Duck issues were more in evidence, but the activity was confined principally to the first mortgage 5 per cents. There was no notable change either in the income bonds or in the stock. G. B. S. Brewing Co. common was a little firmer, and the income bonds also improved, but the changes in the first mortgage issue were only fractional. The trust and fidelity stocks were without particular interest except for United States Fidelity & Guaranty, which rose rapidly for 8 points upon reports of increased earnings and assisted by information concerning the terms for the acquirement of the Lawyers' Surety Co. of New York.

In the trading United Railways common sold between 15 $\frac{1}{8}$ and 16 $\frac{1}{4}$; the income bonds started at 69 $\frac{1}{2}$, rose to 70 $\frac{1}{2}$, but reacted to the starting point. The first mortgage 4 per cents were steady between 96 $\frac{1}{2}$ and 97. A sale of scrip was made at 28. United Electric Light & Power preferred was traded in at 41 $\frac{1}{4}$ to 41 $\frac{3}{4}$, and the 4 $\frac{1}{2}$ per cent. bonds at 85; Consolidated Gas sold between 69 $\frac{1}{2}$ and 70 $\frac{1}{2}$; Seaboard common stock began at 25 $\frac{1}{2}$, rose to 26, and then declined to 25 $\frac{1}{2}$; the preferred stock dropped from 45 $\frac{1}{2}$ to 45; the 4 per cent. bonds changed hands between 85 $\frac{1}{4}$ and 85 $\frac{1}{2}$, while the 5 per cents were steady at 103 $\frac{1}{2}$. Cotton Duck common sold between 10 $\frac{1}{4}$ and 11; the income bonds at 48 $\frac{1}{2}$, and the 5 per cents rose from 81 $\frac{1}{2}$ to 82 $\frac{1}{4}$. United States Cotton Duck common sold at 16 $\frac{1}{4}$. G. B. S. Brewing common started at 17, rose to 18, and reacted a quarter; the income bonds sold between 43 and 45 $\frac{1}{2}$, and the first mortgage bonds between 53 $\frac{1}{2}$ and 54.

The movement in United States Fidelity & Guaranty stock was rapidly upward from 148 to 156, then on profit-taking there was a reaction to 154 $\frac{1}{2}$. Continental sold at 217 to 217 $\frac{1}{2}$; Maryland Casualty at 51 $\frac{1}{2}$ to 53 $\frac{1}{2}$; International Trust at 127 $\frac{1}{2}$; Union Trust at 64, and Fidelity & Deposit at 164 $\frac{1}{2}$. Citizens' National Bank stock changed hands at 33 $\frac{1}{2}$; Third National at 126.

Other securities traded in were as follows: Maryland & Pennsylvania common stock, 32; Baltimore & Potomac main line 5s, 118; West Virginia Central 6s, 115 $\frac{1}{4}$; Wilmington & Weldon 5s, 123 $\frac{1}{4}$; Wilmington & Weldon 7s, 170 $\frac{1}{4}$; Anacostia & Potomac 5s, 97 $\frac{1}{2}$ to 99; City & Suburban (D. C.) 5s, 98 to 99; Lexington Street Railway 5s, 103 $\frac{1}{4}$ and 104; Knoxville Traction 5s, 100; Canton Company, 100 and 101 $\frac{1}{2}$; Charleston & Western Carolina 5s, 116; Georgia & Pacific 1sts, 129; Richmond & Petersburg 6s, 119 $\frac{1}{4}$; Savannah, Florida & Western 6s, 130; Newport News & Old Point 5s, 108 $\frac{1}{2}$ and 109; Norfolk Railway & Light 5s, 96; Nor-

folk Street Railway 5s, 114; Virginia Railway & Electrical Development 5s, 97 to 98 $\frac{1}{2}$; North Carolina 6s, 135; Baltimore & Annapolis Shortline 5s, 109 $\frac{1}{4}$; Georgia & Alabama Consolidated 5s, 116; Atlanta Street Railway 5s, 108 and 108 $\frac{1}{4}$; Georgia, Carolina & Northern 5s, 114 $\frac{1}{4}$ and 114 $\frac{1}{2}$; Georgia Southern & Florida first preferred, 100 $\frac{1}{4}$ and 100 $\frac{1}{2}$; Georgia Southern & Florida second preferred, 82; Wilmington, Columbia & Augusta 6s, 113 $\frac{1}{2}$; Citizens' Railway, Light & Power of Newport News, 98; Maryland Telephone 5s, 90; Atlantic Coast Line of Connecticut, 260; Atlanta & Charlotte, 167 $\frac{1}{4}$; Western Maryland, 35; Metropolitan Street Railway 5s (D. C.), 122.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
June 25, 1902.

Railroad Stocks.	Par.	Bid.	Asked
Atlanta & Charlotte.....	100	167	168
Georgia Southern & Florida.....	100	48	...
Georgia Sou. & Fla. 1st Pfd.....	100	100 $\frac{1}{4}$	100 $\frac{1}{2}$
Georgia Sou. & Fla. 2d Pfd.....	100	82	85
United Railways & Elec. Co.....	50	16	16 $\frac{1}{2}$
Seaboard Railway Common.....	100	25 $\frac{1}{2}$	26
Seaboard Railway Preferred.....	100	44 $\frac{1}{2}$	45
Atlantic Coast Line of Conn.....	100	256	...

Bank Stocks.	Par.	Bid.	Asked
Citizens' National Bank.....	100	33 $\frac{1}{2}$	33 $\frac{3}{4}$
Commercial & Far. Nat. Bank.....	100	128 $\frac{1}{2}$	130 $\frac{1}{2}$
Farmers & Mer. Nat. Bank.....	100	70	...
German Bank.....	100	108	...
Manufacturers' National Bk.....	100	100	105
National Bank of Baltimore.....	100	130	...
National Bank of Commerce.....	15	30	...
National Howard Bank.....	10	11 $\frac{1}{2}$	...
National Marine Bank.....	30	37 $\frac{1}{2}$	40
National Mechanics' Bank.....	50	165	169
National Union Bank of Md.....	100	119	...
Old Town Bank.....	10	11 $\frac{1}{2}$	...
Third National Bank.....	100	126	128

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked
Colonial Trust.....	50	25	31 $\frac{1}{2}$
Continental Trust.....	100	220	...
Fidelity & Deposit.....	50	164 $\frac{1}{2}$	...
International Trust.....	100	127 $\frac{1}{2}$	130
Maryland Casualty.....	25	52 $\frac{1}{2}$	54
Maryland Trust.....	100	207	210
Mercantile Trust & Deposit.....	50	165	169
Union Trust.....	50	64 $\frac{1}{2}$	65
U. S. Fidelity & Guaranty.....	100	153	154 $\frac{1}{2}$

Miscellaneous Stocks.	Par.	Bid.	Asked
G. B. & S. Brewing Co.....	100	17 $\frac{1}{2}$	18
United Elec. L. & P. Pfd.....	50	41 $\frac{1}{2}$	42 $\frac{1}{2}$
Cotton Duck Voting Trust.....	100	10	10 $\frac{1}{2}$
Consolidation Coal.....	100	83	...
George's Creek Coal.....	100	115	...
Consolidated Gas.....	100	69 $\frac{1}{2}$	70 $\frac{1}{4}$
Atlantic Transport.....	100	265	270

Railroad Bonds.	Par.	Bid.	Asked
Atlanta & Charlotte 1st 7s, 1907.....	115	...	...
Char., Col. & Aug. 1st 5s, 1910.....	122 $\frac{1}{2}$	...	...
Char., Col. & Aug. 2d 7s, 1910.....	106	...	...
Columbia & Greenville 1st 6s, 1916.....	120	123	...
Georgia, Car. & North. 1st 5s, 1929.....	114 $\frac{1}{2}$	...	...
Georgia South. & Fla. 1st 5s, 1945.....	115 $\frac{1}{2}$	...	...
Georgia Pacific 1st 6s, 1922.....	128	...	...
Petersburg, Class A 5s, 1926.....	118	...	...
Petersburg, Class B 6s, 1926.....	128	...	...
Piedmont & Cum. 1st 5s, 1911.....	109	...	...
Raleigh & Augusta 1st 6s, 1926.....	126	...	...
Richmond & Danville 1st 6s, 1915.....	123 $\frac{1}{2}$	...	...
Savannah, Fla. & West. 5s, 1934.....	114 $\frac{1}{2}$	...	...
Seaboard & Roanoke 6s, 1916.....	112 $\frac{1}{2}$	116	...
Southern Railway Con. 5s, 1904.....	123	...	...
Virginia Midland 1st 6s, 1906.....	107 $\frac{1}{2}$	...	...
Virginia Midland 2d 6s, 1911.....	115 $\frac{1}{2}$	...	...
Virginia Midland 3d 6s, 1916.....	120	...	...
Virginia Midland 4th 3-4-5s, 1921.....	114	...	...
Virginia Midland 5th 5s, 1926.....	116	...	...
West. North. Carolina Con. 5s, 1912.....	127 $\frac{1}{2}$	...	...
West Virginia Central 1st 6s, 1911.....	115 $\frac{1}{2}$	116 $\frac{1}{2}$	...
Wilmington & Wel. Gold 5s, 1935.....	123	...	...
Charleston Con. Electric 5s, 1909.....	92 $\frac{1}{2}$	96	...
Knoxville Traction 1st 5s, 1928.....	99 $\frac{1}{2}$	100	...
Newport News & Old Pt. 5s, 1938.....	108 $\frac{1}{2}$	...	...
Norfolk Street Railway 5s, 1944.....	114	...	...
United Railways 1st 4s, 1949.....	96 $\frac{1}{2}$	...	...
Seaboard 10-year 5s, 1949.....	89 $\frac{1}{2}$	89 $\frac{1}{2}$	...
Seaboard 10-year 5s, 1949.....	89 $\frac{1}{2}$	89 $\frac{1}{2}$	...
Lexington Railway 1st 5s.....	103 $\frac{1}{2}$	104	...
Georgia & Alabama Con. 5s.....	115	116 $\frac{1}{2}$	...
South Bound 5s.....	112 $\frac{1}{2}$	113	...
Atlanta Street Railway 5s.....	108	108 $\frac{1}{2}$	...
Maryland & Pennsylvania Inc. 4s.....	69	70	...
Augusta Railway & Elec. 1st 5s.....	100	...	...

Miscellaneous Bonds.	Par.	Bid.	Asked
Mt. V. & Woodby's Cot. Duck 5s.....	82 $\frac{1}{2}$	83	80
Mt. V. & Woodby's Cot. Duck Inc. 4s.....	48	50	...
G. B. & S. Brewing 1st 3-4s.....	53 $\frac{1}{2}$	54	...
G. B. & S. Brewing 2d Income.....	44 $\frac{1}{2}$	45 $\frac{1}{2}$	...
United Elec. Light & Power 4 $\frac{1}{2}$ s.....	85 $\frac{1}{2}$	86	...
Consolidated Gas 6s, 1910.....	114 $\frac{1}{2}$	115	...
Consolidated Gas 5s, 1939.....	117 $\frac{1}{2}$	118	...

SOUTHERN COTTON MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for
Week Ending June 24.

Abbeville Cotton Mills (S. C.).....	75	85
Alken Mfg. Co. (S. C.).....	89	97
American Spinning Co. (S. C.).....	112 $\frac{1}{2}$...
Anderson Cotton Mills (S. C.).....	125	...
Arkwright Mills (S. C.).....	118	...
Augusta Factory (Ga.).....	65	71
Avondale Mills (Ala.).....	82 $\frac{1}{2}$...
Belton Mills (S. C.).....	100	...
Bibb Mfg. Co. (Ga.).....	110	...
Bennettsville Mfg. Co. (S. C.).....	85	91
Cabarrus Cotton Mills (N. C.).....	125	...
Clearwater Blech. & Mfg. Co. (Ga.).....	100	103
Clinton Cotton Mills (S. C.).....	118	177 $\frac{1}{2}$
Courtenay Mfg. Co. (S. C.).....	125	130
Dallas Mfg. Co. (Ala.).....	73	...
Darlington Mfg. Co. (S. C.).....	86 $\frac{1}{2}$	91
Engle & Phenix Mills (Ga.).....	89	95
Enoree Mfg. Co. (S. C.).....	80	...
Enterprise Mfg. Co. (Ga.).....	87	94

Exposition Cotton Mills (Ga.).....	150	...
Gaffney Mfg. Co. (S. C.).....	107 $\frac{1}{2}$	...
Granby Cotton Mills (S. C.).....	94	...
Granby Cotton Mills (S. C.) 1st Pfd.....	103	...
Graniteville Mfg. Co. (S. C.).....	160	...
Greenwood Cotton Mills (S. C.).....	105	...
Grendel Mills (S. C.).....	108 $\frac{1}{2}$	...
Henrietta Mills (N. C.).....	202	...
King, John P., Mfg. Co. (Ga.).....	90	97
Langley Mfg. Co. (S. C.).....	104	110
Laurens Cotton Mills (S. C.).....	150	...
Lockhart Mills (S. C.).....	104	...
Louise Mills (N. C.).....	101	...
Lynchburg Cotton Mills (Va.).....	125	130
Lynchburg Cotton Mills (Va.) Pfd.....	145	150
Manchester Cotton Mills (S. C.).....	115	...
Mayo Mills (N. C.).....	144	...
McColl Mfg. Co. (S. C.).....	106	...
Monaghan Mills (S. C.).....	95	96 $\frac{1}{2}$
Newberry Cotton Mills (S. C.).....	117	...
Norris Cotton Mills (S. C.).....	110	...
Odell Mfg. Co. (N. C.).....	99	...
Orr Cotton Mills (S. C.).....	100	...
Pacolet Mfg. Co. (S. C.).....	190	...
Pelzer Mfg. Co. (S. C.).....	170	...
Piedmont Mfg. Co. (S. C.).....	165	172 $\frac{1}{2}$
Poe, F. W., Mfg. Co. (S. C.).....	133 $\frac{1}{2}$	137 $\frac{1}{2}$
Richland Cotton Mills (S. C.).....	98	101
Richland Cotton Mills (S. C.) Pfd.....	103 $\frac{1}{2}$	...
Sibley Mfg. Co. (Ga.).....	68	...
Southern Cotton Mills (N. C.).....	100	...
Spartan Mills (S. C.).....	132 $\frac{1}{2}$	...
Trion Mfg. Co. (Ga.).....	130	140
Tucupau Mills (S. C.).....	134	...
Union Cotton Mills (S. C.).....	150	...
Union Cotton Mills (S. C.) Pfd.....	100	102
Victor Mfg. Co. (S. C.).....	115	...
Warren Mfg. Co. (S. C.).....	97	101
Warren Mfg. Co. (S. C.) Pfd.....	106	...
Washington Mills (Va.) Pfd.....	106	...
Whitney Mfg. Co. (S. C.).....	112 $\frac{1}{2}$	...
Wilmington Cotton Mills (N. C.).....	100	...
Wisconsin Mills (N. C.).....	115	125

Fowler Bill in the South.

The joint convention of the bankers' associations of Georgia, Virginia and North Carolina, held at Savannah, adopted a resolution on the Fowler banking bill, saying:

"That while the said bill embraces many admirable features, with the lights before us we cannot indorse the same. We recommend to the members of this association that they give the bill careful study, so that at the proper time and season they will be prepared to give expression to their convictions on this subject."

Regret was expressed that Congressman Fowler was unable to attend and explain the measure. It was urged that days of grace on commercial paper be abandoned, and that the national bankruptcy law be either repealed or revised.

The different State conventions elected officers for the year as follows:

Virginia Bankers' Association—President, O. J. Sands, Richmond; treasurer, H. A. Williams, Richmond; secretary, N. R. Gatling, Lynchburg.

North Carolina Bankers' Association—President, George W. Montcastle, Lexington; secretary and treasurer, C. N. Evans, Charlotte.

Georgia Bankers' Association—President, F. D. Bloodworth, Savannah; treasurer, G. H. Plant, Macon; secretary, L. P. Hillyer, Macon.

In the separate meetings of the State associations the Georgia bankers adopted resolutions declaring against the Fowler bill, while the Virginia bankers referred the bill to a special committee, which is to report at the next meeting of the association. The action of the North Carolina bankers was in line with that of the joint convention.

A Title Guarantee Company.

The New Orleans & Louisiana Abstract Co., Ltd., has been organized at New Orleans, La., to conduct a title guarantee business; capital \$75,000. It is stated that this is the stepping-stone to the formation of a larger company next year with a combined capital of more than \$500,000. The officers are: Jeff T. Heath of Mauston, Wis., president; Henry Denis of New Orleans, vice-president; Charles T. Madison of New Orleans, secretary; E. V. Benjamin of Mauston, Wis., treasurer. Besides the foregoing, the following are on the board of directors: J. Ad. Blaffer of New Orleans, J. D. Jones of Warsaw, Wis., and Fred Olcott of St. Croix Falls, Wis. Mr. Heath is president of the State Bank of Mauston, Wis. The charter of the company provides that, in addition to conducting a title guarantee

TABLE OF CONTENTS.

EDITORIAL:	Page.
Charles T. Fleet.....	413
Training for Trade.....	413
The Isthmian Canal.....	413
International Iron Problem.....	413

The Southern Farm Magazine.....	414
In the Beaumont Oil Fields.....	414
Beaumont's Latest Industry.....	414
Scope of the St. Louis Exposition for 1904.....	414
Increasing the Rice Area.....	415
Brought to Memphis.....	416
Graduated to Work.....	416
Awakening to the Needs of Southern Boys.....	416
Better Equipment Needed.....	416
A Story of Progress.....	416
The Instant Need.....	417
Riches of the South.....	417
Practical Training.....	417
In the South's Interest.....	417
Abrasive in the South.....	417
Working for Alabama.....	417

RAILROADS:

Short Line to the Gulf.....	417
Southern Pacific Land Congress.....	418
Building Towards Pontotoc.....	418
A New Lumber Road.....	418
Extensions in Texas.....	418
New Orleans & Southwestern.....	418
'Frisco & Seaboard.....	418
Macon Street Railway Deal.....	418
James River Railroad.....	418
New Line in Georgia.....	419
Extensions Proposed.....	419
High Point's Electric Line.....	419
Rutherfordton to Asheville.....	419
A Six-Mile Connection.....	419
A Beautiful Souvenir.....	419
Laurens to Clinton.....	419
Norfolk & Western's Work.....	419
Reported Plans to Extend.....	419
Railroad Notes.....	419
Working for Huntsville.....	419

TEXTILES:

Greensboro's Denim Mills.....	419
A \$12,500 Knitting Mill.....	419
New England Mill Men.....	419
Textile Notes.....	420
Quotations of Cotton Yarns.....	420
Cottonseed-Oil Notes.....	420

LUMBER:

Lumber Market Reviews:	
Baltimore.....	420
Charleston.....	420
Norfolk.....	421
Savannah.....	421
Mobile.....	421
Beaumont.....	421
Lumber Notes.....	421

MECHANICAL:

Wood-Frame Belt Press (Illus.).....	422
The Pittsburg Plant of the American Bridge Co. (Illus.).....	422
Double-Disc Pulverizer (Illus.).....	422
Jeffrey Package-Handling Machinery (Illustrated).....	422

PHOSPHATES:

Phosphate Markets.....	424
Phosphate and Fertilizer Notes.....	424
A Concrete Town.....	424
Trade Notes.....	424
Trade Literature.....	429

CONSTRUCTION DEPARTMENT:

New Enterprises.....	425
Building Notes.....	427
Railroad Construction.....	428
Machinery Wanted.....	429

FINANCIAL NEWS:

Review of the Baltimore Market.....	430
Securities at Baltimore.....	430
Southern Cotton Mill Stocks.....	430
Fowler Bill in the South.....	430
A Title Guarantee Company.....	430
Southern Gold.....	28
Kentucky's Tax Basis.....	28
Money Owned by the Indians.....	28
Texas Revenues.....	28
Montgomery Light & Power.....	28
New Corporations.....	28
New Securities.....	28
Financial Notes.....	28

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